

Our 7th Annual Tips and Tricks Issue

Special Report  
From Macworld Expo!

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# MachHome

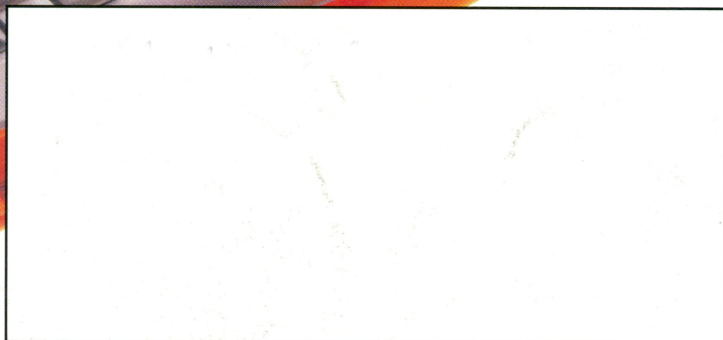
S o l u t i o n s   f o r   W o r k ,   P l a y   &   E d u c a t i o n



## WOW.

**An iMac to Go?**

**Apple's Wireless iBook Arrives!**

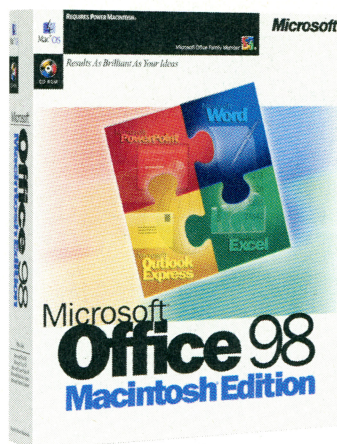






# jet.





# fuel.

Now that you've got that hot, new computer, wanna really make it go? Get Microsoft® Office 98 Macintosh Edition.

Office 98 is the productivity suite that's right for everyone. With it, you'll zip through tasks, dash through data, and create stunning documents, presentations, and spreadsheets faster than you can say, "fasten your seatbelt."

That's because Office 98 includes the kinds of features that make getting off the ground easy. Like drag-and-drop installation. Automatic spelling and grammar checking. An interactive Office Assistant that offers suggestions as **you work** and stands at the ready to answer any question. And—get this—a self-repair feature that automatically replaces necessary files if they accidentally get deleted.

Best of all, Office 98 was built from the ground up for the Mac. From the interface, to the icons, to the sophisticated ease of use, even the experts agree *we finally got it right*. Which means with Office 98 you can make good on all the reasons you bought that powerful new iMac in the first place. To really go places. Faster and more easily than ever before.

Microsoft Office 98 Macintosh Edition. **Prepare for take-off.**

"This software suite demonstrates that, for the first time in its history, Microsoft truly understands what 'Macintosh elegance' means." —David Pogue, Macworld



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# september 1999 contents [www.machome.com]

volume 7, number 9

## The Tips Issue

### Tips of the Titans \_\_\_\_\_ 14

*By MacHome staff*

Wouldn't it be ever so grand to be capable of wowing your friends and associates with your knowledge of 103 eminently usable Macintosh tips and tricks, displayed in a casual, almost offhand manner? Read this article and you'll be capable of just such a dramatic display.

### DataBasics \_\_\_\_\_ 20

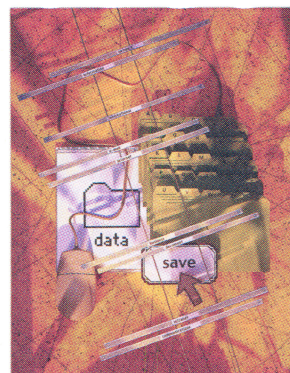
*By Jeff Battersby*

Databases needn't be dull. You can easily create your own to organize, categorize and sort whatever you want — cutlery, auto parts, baseball cards, aromatherapy potions, home addresses of movie stars, what-have-you. We'll get you started, and then there'll be no stopping you.

### Home Automation \_\_\_\_\_ 24

*By Alan Stafford*

Your home is indeed your castle. Learn how to control the drawbridge, feed the alligators in the moat, and pour boiling oil from the ramparts, all automatically, with your Mac. Or if you live in a more modern time, learn how to feed the dog, turn on the lights, and open the garage door — that sort of thing.



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## NewsWire

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Macworld Extravaganza: Stalking the Floor

Avid Cleans up Web Video

Corel's Home-Office Heavyweights

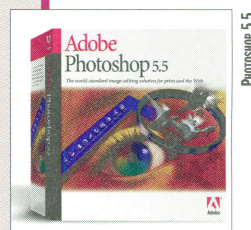
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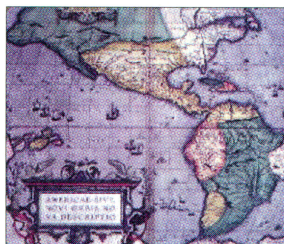
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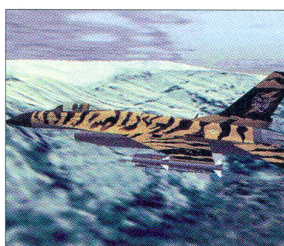
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## Reviewed This Issue

### Your Office: Software

- ★★★★ AudioCatalyst  
★★★★ Internet Phone  
★★★★ I VideoShop  
★★★ I EditDV Unplugged  
★★ I Amorphium  
★★★★ I Photo/Graphic Edges 4.0  
★★★★ I MacTuner 2.0.7  
★★★★ I UpdateAgent 3.0

### Your Office: Hardware

- ★★★★ RDC-5000 Digital Camera  
★★ UDrive  
★★★★ PowerBook G3/333  
★★★★ Pen Partner  
★★★★ I Teac Floppy Drive

### Entertainment

- ★★★★ I Age of Empires  
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### Your Family

- ★★★★ Blue's 1-2-3 Time Activities  
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★★★★ Thinkin Things: Toony the Loon's Lagoon  
★★★★ Virtual Physics: Eggs of Time

### Our Rating System

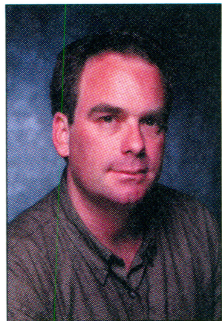
- ★★★★★ **Mac-nificent.** You gotta get it. No flaws.  
★★★★ **Excellent.** Recommended even if it has a minor flaw or two.  
★★★ **Average.** Despite problems, still a worthwhile product.  
★★ **Below Average.** Has serious flaws that limit its usefulness or fun.  
★ **Poor.** Avoid this product at all costs.



Indicates iMac/G3 compatibility



# from the chief [Editorial]



## They Walk Among Us

**T**here were three expositions going on in mid-July at Manhattan's Javits Center, and I dang near walked into the Law Enforcement Expo, with such compelling seminars as "Defeating Terrorism" and "Confrontational Handcuffing." It would certainly have been entertaining, but Steve Jobs' Macworld Expo keynote speech next door was ultimately the

last word in excitement.

Thousands of showgoers rocked politely to the strains of Buddy Holly, Stray Cats, even the Surfaris' "Wipeout," before Steve Jobs finally broke the silence on the mysterious consumer portable, the iBook. Showman that he is, he took his time. He told us about the ongoing surge in Apple's business, new partners in QuickTime's streaming media alliance — ABC News, ESPN, Rolling Stone, VH1, and Disney. He previewed MacOS 9, told us how the iMac's doing, and that the CEO of the Gap has joined Apple's board. When he was about to talk about the portable, thousands of cameras got ready and thousands of chairs squeaked as thousands of bodies leaned forward in anticipation.

The iBook is curvy, translucent, and exciting. Although the audience wasn't too enthused at first with the \$1,599 price, when Jobs demonstrated the wireless capabilities (available with an optional card and base station), the crowd went nuts. I and several other adults around me started shrieking like crazed pygmy mar-mosets. Apple's Phil Schiller participated in the demo by jumping from the rafters holding an iBook that was transmitting data to Jobs's system. Lastly, Jobs pointed out that all around us in the audience, 100 Apple employees were planted with iBooks, so we could see them up close. It was like "Invasion of the Body Snatchers" — they walked among us.

Compare such showmanship to the sedateness of other computer shows, and you'll see why Apple is now more of a player than ever. Not only is it introducing great products at great prices, it's having fun doing it. They've brought excitement, playfulness, creativity, and innovation together again, and the rest of the industry will continue to sit up, notice, and, ultimately, imitate.

Next to me, a school administrator gushed about the iBook, as though it was an answer to his prayers. He was wondering, if he got three of the wireless transmitter units, each can work with 10 iBooks ... could he support 30 iBooks in a lab? I sensed that all around me there were folks asking the same questions. How can I use this? I want one. I must have one. Or ten.

This is the sort of thinking that will truly revitalize Apple's relevance to the world — thousands of individuals thinking how they will use these amazing new Macs.

Next door, the cops were learning to handcuff combative suspects. We were learning to be free.

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# Write On

## [Your Letters]

### Once You GoMac, You Never Go Back

In your June issue, Jeff Battersby asks why you need a bar tacked to the bottom of the screen when you can use the Apple Menu and OS 8.5's removable Application Menu.

The first answer is because they take more steps to use. If I wanted to switch between applications with the Application Menu, first I had to go that menu, hold down the mouse button, and then *finally* choose the application. With GoMac, I just point and click.

The second answer is because while OS 8 does give you a tear-off Application Menu, it's always in the way. It's always on top of whatever it is you're doing at the moment. I like the idea of an application dock that stays at the bottom of the screen and only takes up a little space.

Keith E. Gatling

### More Trouble out in Iowa

In his letter in the July issue of *MacHome*, John Lehman failed to mention several other things about Cedar Falls and Iowa. His Internet service is through the Cedar Falls Municipal Utilities! They generate their own electricity, operate the local cable TV system, and will soon be offering local telephone service to CF residents. Iowa law also allows municipalities to offer local telephone service — several have had elections and approved it. Iowa is, after all, much more than just “fly-over” country.

Ken Trettin

### Again with the Erudition

Please ignore the request to “dumb down” your vocabulary (Write On, July 1999). The problem is not with your writing. Do not fall prey to the lowest-common-denominator syndrome. Half of the words listed should have been known to a high school graduate.

David Creamer

The letter about the “arcane” words used in your publication is a real hoot! The writer uses some pretty arcane words himself!

Personally I like erudition, and it seems a sad comment when someone feels pressured by having to use a dictionary. Sounds like the teenagers in this family — always wanting things kept simple. Thanks for not carrying “simple” to an extreme.

Agnes E. Cloninger

*Our ongoing quest to disseminate illustrative sapience is embodied not only in this epistolary missive, but hopefully elsewhere in the periodical and in our everyday ruminances and perambulations.*

### Stupid Jacks!

Why does Apple insist on these lame “almost-mini-but-not-quite” microphone jacks, and is there anybody who makes adapters so I can run a normal mini-plug to my Mac?

GB Hajim

*Good question, GB. Those are called PlainTalk jacks, and yes, they are rather annoying. The friendly folks at Griffin Technology ([www.griffintechology.com](http://www.griffintechology.com)) make just the type of adapter you're looking for, however. It's called NE Mic (get it?) and it costs \$20.*

### Licentious Behavior

Apple has been selling quite a few T-shirts, caps, mugs, etc., with its logo. How about auto license-plate frame? I would love to buy one for my car. I am sure it will sell fast!

LJSTACK1@aol.com

*You mean your car or the license plates? And where would the logo go?*



### I Gots Problems

When a person has a problem, they can feel all alone. It can actually be a scary thing. When I had a problem on my “Wintel” computer,

everyone was tech support — even my girlfriend's 13-year old son. But now that I have a Mac, my family and friends all turn a deaf ear to any computer problems.

Now that Apple has everyone “Thinking Different,” I think the next step for them to really get a grip on the market would be to offer FREE tech support to all Mac users, old and new. Forget about warranties and serial numbers — let us ask questions about the stuff they made and sold us. They could advertise it as, “once you're part of the Mac family, you're always a Mac person to us ... not just for the first 90 days.” The Wintel users might finally say to their friends, “Gee, I wish we had that.”

John M. Zimmerman

### Two Out of Three Ain't Bad

I am not renewing my subscription to *MacHome Journal*. There is hardly anything I wish to read any longer in your magazine. Even your “Basics” section, which I used to read avidly, is of little use to me any more since I own a hopelessly outdated Performa 636 running System 7.5, and nearly all your remarks are addressed to owners with newer machines.

I do not play games, massage photos, run a home office, or surf the Internet. I do simple things like word processing and keeping my financial records. Most of your articles nowadays seem designed to sound “cool” and “hip” rather than to inform. When I want to be cool I will turn on the air-conditioner.

Andre Jackson



**A**fter reading your review of scanners (July 99), I purchased one. When I had problems, I contacted tech support (long distance, no 800 number). They tried to help — sort of.


The tech knew nothing about Macs and put me on hold for twenty minutes while she asked around for advice. Then she told me to fax my question to their office. A week later they had not replied. So much for their tech support.

I was very unhappy with my purchase and expressed my feelings via e-mail to your reviews editor, David Weiss. He responded immediately and over the next few days and several e-mails, we worked out a solution. His patient support is just another reason why I've been a subscriber since '94 when I found a complimentary copy of *MacHome* along with my first Mac (a Performa 575).

*John Weismiller*

**I** subscribe and have read every issue of *MHJ* cover to cover for about three years. What A TERRIFIC publication! I also save each *MHJ* HotTips e-mail you send. THANK YOU! THANK YOU!! THANK YOU!!!

*Ralph Warner*

 Thanks, Mr. Warner! The check's in the mail.

#### **Julia the Cruise Director**

**A**lthough Apple would probably like to take complete credit for the translucent plastic thing, they may be just part of a trend. In September '98 I was driving down the West Side Highway in Manhattan with a friend who is a Mac fiend. What should we spy pulled up to a pier but a GIANT translucent turquoise- (i.e., Bondi blue) and-white cruise ship. I believe it's a part of the Princess line. This ship must have been in the design pipeline for years before the iMac debuted. My friend was a bit offended when I pointed out its resemblance, albeit on a vast scale, to the iMac.

*Julia Toos*

#### **Mmmm ... Catastrophic Disasters**

**A**pple must have hired a failed Windows programmer to write OS 8.5.1. I had a clean 8.5.1 installation, thinking that it would be an improvement. Now my G3 won't recognize my laser printer, so I am reduced to a pencil and yellow pad. If Apple is going the way of Windows, I might as well go with a machine that uses Windows. But I subscribe to a mailing list of women pilots, and many mention crashing hard drives. And all of my friends that are Windows users have suffered catastrophic disasters.

*mjmcneil@earthlink.net*

**write us!**

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## Measure the Pleasure of PowerUSB 4-Port Hubs

Want to really plug-in to power packed pleasure? Try connecting up to 127 USB devices to your iMac or G3. Yes, it's possible with the new PowerUSB 4-Port Hub from TechWorks. PowerUSB delivers connectivity to all your USB toys such as printers, joysticks, cameras, speakers, scanners and much more. Why wait? Just plug-in and enjoy. Plus, with over a decade of experience, TechWorks guarantees quality products and service!

- Works With iMac or G3 Computers
- Plug and Play Automatic Device Detection
- 4-Port Hub Expansion
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- 30-day Money Back Guarantee
- 1-Year Limited Warranty
- Free Lifetime Technical Support

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## Gimme an iMac to Go!

**T**hat was the consumer cry and Apple delivered. Apple iCEO Steve Jobs unveiled the long-anticipated Macintosh consumer portable called, not surprisingly, the iBook at Macworld. The iBook — expected to ship this month — is a spiffy little wireless unit that carries a pricetag of \$1,599. The blueberry or tangerine wireless-capable iBook includes such features as a 12.1-inch screen with an 800 x 600 resolution, an ATI Rage Mobility graphics circuit, and 4MB of VRAM. There are two small antennas inside the screen for wireless connection.

This little rocket ship flies at 300 MHz on a G3 processor with 512K backside cache and comes with a 24X CD-ROM, a 56k modem, USB, and 10/100 Ethernet. It even has a retractable handle. There's no latch: just open and close it. It has a full-size keyboard and six hours of battery life, great for a day at school. It also comes with a neat round charger with the cable already wrapped.



The optional wireless network consists of a wireless local area network (LAN), which runs at 11 Mbits per second so you don't have to be pinned to a plug. All communications are privacy encrypted. An AirPort Base Station, with a 56k modem and 10/100 Ethernet, is available for \$299. An AirPort card, which fits under the iBook's keyboard, goes for \$99. Up to 10 iBooks can share a single bay station with a range of 150 feet, or the size of half a football field. With the wireless connection, you can launch your browser and even view QuickTime videos.

Jobs also announced the advent of OS 9 with a reported 50 new features. One of the main features demoed in the keynote was Sherlock 2, which improves on the Sherlock search function. With Sherlock 2, you can search through channels such as news, people, and shopping and get information with results sorted by price and availability, find e-mail addresses, or make an online purchase.

Jobs' keynote address also heralded the introduction of IBM's ViaVoice speech-recognition technology that delivers impressive voice-to-text transmission. He also mentioned a new portable USB flatbed scanner from NEC; a multi-function printer-scanner-fax machine from Epson; and *Halo*, an astonishing new action game from Bungie, which is expected to ship early next year. Jobs announced the release of *Toy Story 2* (Thanksgiving, 1999) along with four accompanying CD-ROMs. He also touted several new Internet streaming content providers for Apple's new QuickTime TV venture, in concert with ABC News, ESPN, Rolling Stone, VHI music, and Disney. Onward and Upward!

Job's announcements come on the heels of an encouraging third quarter in which Apple declared its seventh consecutive quarter of profits, posting a net profit of \$203 million, about double the \$101

## GCC Elite

**I**f you're looking for a high-end laser printer for your home office, GCC's new Elite 12/600 USB for \$699 is now available. The printer runs at 12 pages per minute with a 600 x 600 dpi resolution. Its USB connection is just the ticket for your iMac or G3.



This printer is especially well suited to nonnetworked applications.

The Elite has a 250-sheet paper tray and an 80-sheet multipurpose tray to handle envelopes and transparencies. Its maximum print area is 8.5" by 13". There's also an optional 500-sheet paper tray. Memory upgrades from 8MB of RAM to 64MB are available.

GCC, 800-422-7777,  
[www.gcctech.com](http://www.gcctech.com)

## Push Here Scanning

**L**ooking for one-button scanning to create your Web graphics, newsletter art, presentations, and school reports? Look no further than the Astra 2200 from Umax. This scanner, for \$249, features a push-button design for scanning, copying, e-mailing, or converting images into text via an Optical Character Recognition (OCR) function. It also features a built-in transparency cover for scanning slides and transparencies. It will be available by September.



The scanner goes with with your USB G3 or iMac, but you can also hook the Astra 2200 up to your older Power Mac's SCSI interface.

The best part is that the Astra 2200 comes with an extremely spiffy Web-development bundle that includes NetObjects Fusion, a Website building and e-commerce tool, and Macromedia Fireworks, a really cool graphics program. The scanner also comes with version 3.5 of VistaScan, Umax's user-friendly driver software.

Umax, 800-562-0311, [www.umax.com](http://www.umax.com)



## Macworld

Continued

million reported for the same quarter in 1998. Apple's reported quarterly revenues were up 11%, along with a 40% growth in unit sales for the year, almost half of which was fueled by the iMac.

### More Macworld Madness!

Aiming its sights at the consumer iMac market,

**Microsoft** (www.

microsoft.com)

announced its soon-to-be-released Microsoft

Word 98 Special Edition for the iMac and iBook. This new program carries a promotional price of \$99 (after a \$30 rebate) through January 31, 2000. It contains the full version of Microsoft Word 98 plus 5,000 pieces of clip art and 100 greeting card templates. It's scheduled to hit the shelves on August 26. ... Microsoft has also unveiled version 5 of Outlook Express, its free e-mail program. OE 5 offers a new way of addressing e-mail, a redesigned address book, and improved e-mail attachment. OE 5 lets you automate many tasks, and you can even synch up all your contacts



and e-mail to your Palm PDA. .... Microsoft also gave a sneak peek at Internet Explorer 5, sporting a new rendering engine and expanded support features. Both OE 5 and IE 5 will be available this fall. .... **Mitsubishi** (www.mitsubishi-display.com) showed off its new

Diamond Pro 710, a 17-inch, flat-faced color monitor priced at \$449. The on-screen display controls let you manipulate over 20 separate settings, including brightness, contrast, and geometry. ... **Keyspan** (www.keyspace.com) announced its Digital

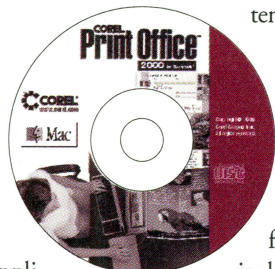
Media Remote for remote control of your Mac's CD, DVD, and QuickTime players, and for other digital-media players and presentation programs. Available for \$79 in September, it has a 15-key infrared remote and an infrared receiver that connects to the Mac's USB port.

Eskape Labs (www.eskapelabs.com) announced the \$160 MyTV and as yet unpriced MyTV/fm for USB. The plug-and-play devices give you high-quality, full frame-rate video over your Mac, with FM broadcasts piped in as well with MyTV/fm. No release date yet, but, we're looking forward to tuning in.

## Corel's New Home Office Heavyweights Target SOHO

**T**aking aim at Macintosh home users and the small office market (that's us!), Corel has unleashed a new pair of products at Macworld, giving you simple-to-use programs for word processing and photo printing. They are: **Print Office 2000** and **Print House 2000**.

The \$99 Print Office 2000, which includes the applications Print Office and Photo House, is aimed at the small-office market and is available now. The two programs are designed to be used seamlessly together,



helping you create business cards, birthday cards, newsletters, and letterheads. It comes with tons of predesigned sample templates. Want to include photos in your layout? No problem. Just send your images to Photo House, the image editor, where you can perform special effects, touch ups, frames, and editing on scans or other digital files. Photos and clip art are included. It also lets you put documents on the Web.

Print House 2000, \$59, contains Print House and Photo House, the same program that comes with Print Office, and

## The Clean Machine

**I**f you're compressing audio and video to put on your Website (and even CD-ROMs, DVDs, and kiosks), check out **Media Cleaner Pro 4**, a package that reads and outputs a wide range of audio and video formats, including

QuickTime 4 streaming, RealIG2, DV, Windows Media, MPEG-1, MP3, AVI, and others for a pricetag of \$500. This compression software lets

you convert between a number of formats without any loss in quality. You can also use Media Cleaner 4 with digital video-editing packages such as Adobe Premiere, Media 100, and Avid.

Terran is now including the Fraunhofer MP3 Encoder free with every new copy and upgrade of Media Cleaner Pro 4.0, allowing you to batch process audio files. This is excellent news for we Mac people, since QuickTime 4 plays, but does not encode, MP3 files. Terran, 800-577-3443, [www.terran.com](http://www.terran.com)



is designed for the home market.

Both programs are equally easy to use. "It's a very nonconfusing interface," explains John Geleynse, Corel's Macintosh brand manager. "When you look at the screen, it is extremely simple for someone who doesn't have a lot of time. The left-hand side of the screen is where you do the decision making. There are no dialog boxes or palettes — there's a 'notebook' on the left and 'paper' on the right. In the notebook, you make the decisions about content, and drag it onto the page. You can't get lost," Geleynse says.

Corel, 800-772-6735, [www.corel.com](http://www.corel.com)



# For Your Listening Pleasure: Rio 500

If you are downloading music in MP3 format from Websites (and who hasn't at least tried this by now?), the **Rio 500** lets you listen to yer tunes while you're on the bus or walking down the street. Diamond Multimedia is now shipping this new 64MB digital audio player from its subsidiary RioPort for \$269. The new model, which is now compatible with iMacs and G3s, has a USB connection, and can store and play up to two hours of music and up to 32 hours of spoken audio.



The device features a back-lit LCD display and new teal, purple, or silver casings. You can expand the memory for additional playback time. The new player also has playback controls that tell you the name and length of the song and the artist, along with customizable settings for bass and treble and control over various other options. There are even special bookmark and control functions for playing back audio, including books, news stories, radio, and more on the RioPort Website. The device runs off

of a single AA battery for 13 hours of playback. The package includes

the player, earphones, USB cable, carrying case, battery, Rio Audio Manager software, and a huge bunch of tunes and talk. Way cool!

RioPort, 408-325-7000, [www.rioport.com](http://www.rioport.com)

## MetaCreations' Sell-Off

MetaCreations, famous for its creative imaging software, has sold three programs to ScanSoft: Kai's Super GOO, Kai's Photo Soap 2, and Kai's Power Show. Kai's Super GOO is a popular photo-imaging application; Kai's Photo Soap 2 lets you enhance, edit, and share photos on the Internet; and Kai's Power Show lets you create multimedia photo shows and business presentations. MetaCreations will continue its customer support for these products until December 31, 1999.

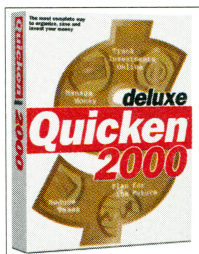
ScanSoft specializes in document imaging and optical character recognition (OCR) Software. Its products include Pagis Pro Scanning Suite, TextBridge Pro, PaperPort Deluxe, PaperPort Scanner Suite, and ScanWorks.

MetaCreations, 800-472-9025, [www.metacreations.com](http://www.metacreations.com)

## The Money Manager

Let's face it. Some people are really ambivalent about money — and even mundane tasks such as balancing a checkbook can become a chore. But with Quicken Deluxe 2000, balancing your checkbook, examining your current assets, and even planning for the future can be fun.

With integrated use of the Internet, and sporting a streamlined interface, Quicken Deluxe 2000 helps you manage your money. The product, which costs \$60, works in conjunction with a new Website called [Quicken2000.com](http://Quicken2000.com). This program lets you keep track of your portfolio's value and stock market historical trends, and lets you research stocks online. The program lets you research and compare mortgage rates, insurance, and credit card and bank interest online. Intuit, 800-446-8848, [www.quicken2000.com](http://www.quicken2000.com)



## Emperor Norton

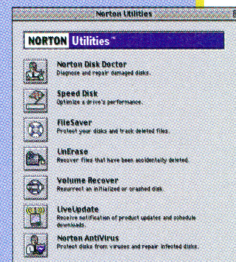
If you've ever encountered unexplained problems with your hardware and software, it's a good bet that you have already called upon the sage assistance of Norton Utilities for disk repair.

Norton has come out with **Norton Utilities 5** for \$100, which takes full advantage of

Apple's updated operating system. The new version features Live Repair, enabling your start-up disk (the one that's likely to be encountering problems) to repair itself. One utility, Disk Doctor, includes an Undo feature.

Symantec has also released Norton Antivirus 6, an upgrade of the program, which sells for \$70. It runs with System 8.1 or later and will protect your Mac against the latest viruses that can enter your system through e-mail, the Internet, floppy disks, and CDs.

With both upgrades, you can download and install the latest updates from the Symantec Website via a LiveUpdate button. Symantec, 800-441-7234, [www.symantec.com](http://www.symantec.com)



## What Nerve!

Apple Computer has sued Future Power and Daewoo Corp. over what it says is their flagrant copying of the iMac design. Apple seeks actual and punitive damages and an injunction barring the companies from selling the iMac lookalikes. The so-called E-Power computers, which debuted at PC Expo in New York, even had the nerve to come in five translucent colors. A couple of trivial details — they run the Windoze operating system and they have a floppy drive.



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# Adobe Unwraps Web-Charged Photoshop 5.5

If you are preparing graphics for your printed newsletter, your Website, or both, Adobe has released **Photoshop 5.5**, a brand new upgrade. The new version, which sells for \$609, tightly integrates Website design functions with

Photoshop's traditional print capabilities by bundling Adobe ImageReady 2.0, a popular Web graphics program, to help you create swift-downloading images and effortless JavaScript rollovers. A "jump to" feature lets you transfer your images from Photoshop to ImageReady for tasks such as rollovers, animations, and image slicing (exactly what it sounds like). A Multiple LiveView panel within the program's new "Save for Web" window gives you the best compression options to save downloading time. The new Extract Image and Background Eraser commands help you mask your images, while an Art

History Brush lets you interactively apply paint strokes to your picture. Instant contact sheets let you share images with others. Yow!

And speaking of sharing your pictures, Adobe has introduced a new software package called ActiveShare (\$20 or bundled free with cameras or scanners) to go with its new Website called

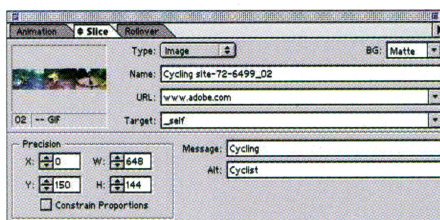
*ActiveShare.com*. This site, which will be available in October, enables you to put your personal photo album online, and in conjunction with eCircles, host chats and share photos with guests.

Here's how it works. At the

*ActiveShare.com* Website, you can download the ActiveShare software that will help you get your personal photos into the computer from digital cameras, scanners, and CDs. The software also helps you edit and organize those images into albums.

Then, you can create your own personal community on the Web by clicking a button that takes you to an ActiveShare/eCircles Web page. eCircles lets you share your photos and communicate with your "circle" of friends and family by facilitating group e-mail, discussion boards, calendars, photo albums, gift registries, and more. And ... it's free!

Adobe, 800-833-6687, [www.adobe.com](http://www.adobe.com)



## Frame your Photos

Hang on to your hats, Photoshop fanatics. Whether you are putting your family photo album online or you're putting the finishing touches on your photo essay on flowers, **PhotoFrame 2.0**, a Photoshop plug-in (that means it can only be used with Photoshop), can give your images the kind of personality you never knew they had.

The release of PhotoFrame 2.0 from Extensis, which sells for \$200, gives you a huge variety of image frames and border effects, plus the ability to build custom frames and edges completely from scratch.

The program lets you give your images frames special effects such as drop shadows and glows, bevels and textures, and blurs and noise, while letting you preview your frames as you make your changes.

The new version gives you more than 1,000 image frames to choose from, and if that's not enough for your creative impulses, you can download more frames from the companion Website, which can be accessed directly from the plug-in. You can also subscribe to a monthly service in which you have continual access to new frames and borders.

PhotoFrame 2 is compatible with Photoshop versions 4 and above, and there's a special price for Photoshop mavens in which you get the new Photoshop 5.5 upgrade and various Extensis plug-ins for image correction and enhancement. Thus, for \$500 you can upgrade to Photoshop 5.5 and also get PhotoFrame 2.0, Extensis PhotoTools 2.0, Intellihance Pro 4.0, and PhotoGraphics 1.0.

Extensis, 800-796-9798, [www.extensis.com](http://www.extensis.com)

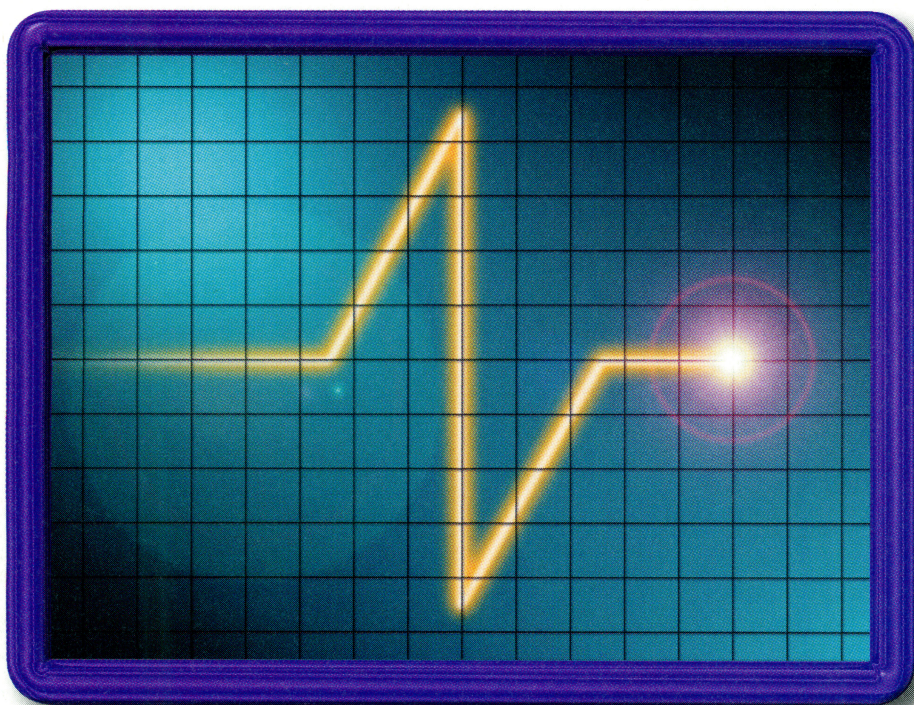
## Tech Support: Still Free for Some

Apple has lots of days in court, though most of them don't mean much to their clamoring customer base. This one, though, does. After a couple of years of wrangling, Apple finally announced a resolution to a sticky little tech-support issue that caused a class-action lawsuit. You see, a while back some folks bought Apple products under the impression that they'd get lifetime technical support — as in, for the lifetime of the products.

Then, in late 1997, Apple phased out unlimited free tech support in a cost-cutting move, leaving many users feeling resentful. Well, thanks to the aforementioned class-action suit, there appears to be some closure. Though details are still being ironed out, Apple announced that customers who bought certain products under the "lifetime free support" warranty can still get free support as long as they still own the original product. Read about it at [www.apple.com/legal/techsupportsettlement.html](http://www.apple.com/legal/techsupportsettlement.html)



There's only one utility in the world that does more for your Macintosh than TechTool Pro 2...

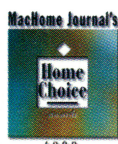


## Introducing TechTool Pro 2.5

MicroMat's disk repair and Macintosh troubleshooting utility just became a whole lot better. Loaded with new features like Trash Cache™, which allows you to resurrect files you've accidentally deleted. Or our new Automated Diagnostic feature that checks your drives at the time intervals you specify, so you're always sure your drives are in top shape. TechTool Pro 2.5 even now supports new technologies like FireWire drives, USB floppy drives, System 8.6, all of the latest Macs and much more. But the real power of TechTool Pro 2.5 isn't in the features

you can see, it's in the features you can't see. Like a multitude of new drive repair routines that can save data that other utilities would simply abandon. An improved recovery system that will find lost files in the darkest caverns of a damaged drive. You'll also find improved performance on key features like disk optimization. But maybe the feature you'll find most interesting about this version is the price: FREE\*. If you own any version of TechTool Pro 2, just go to our web site and grab the updater. You'll be glad you did.

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\* Version 2.5 is available at no charge to registered TechTool Pro 2 users as an updater application directly from the MicroMat web site. If you do not wish to download the updater or would prefer a new CD, they can be purchased for \$25 plus tax, shipping and handling by calling the phone number above. Please have your serial number ready when calling. Prices subject to change without notice.  
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# TIPS OF THE TITANS

103 Hot and  
tasty tips to  
spice up your  
Mac experience.  
Try them today  
with someone  
you love.

FROM THE EDITORS OF MACHOME

Of course you know that in Mac OS 8.5 or later, holding down the Apple key when clicking in a Finder window will change the familiar arrow cursor to a hand. And that you can drag the contents of said window up and down, side to side, and all around as long as you hold the key down. Didn't you? Well, now you know. Try it out. Go ahead. We'll wait.

If you like that sort of thing, this article is for you. We at *MacHome* have compiled herewith a listing of useful tips to make your Mac experience the best it can be. And of course you can dazzle a few friends and admirers in the process. And if they're not admirers yet,

they will be soon enough. Oh, yes.

All right already! **Enough of this preamble! On to the tips!** (Note: Throughout these tips, we're going to mention key combinations, as in "Apple-Option-Control-Shift-F11." To issue these commands from your keyboard, hold down all of the keys at the same time except the last one, and then press the last one. The Apple key (🍏 or ⌘) is also known as "Command.")



**1** When sending Word files to folks on Windows boxes, try mimicking the DOS file extension convention by adding “.doc” after the file name. Likewise with Excel files — add “.xls” to the file name.

**2** Press Apple-“.” (period) to halt a process that’s getting you nowhere (such as a noncompliant print request) or to put an end to an endlessly spinning timeout watch.

**3** If that doesn’t do the trick, and you want to quit out of a program by force, perform a Forced Quit by holding down the Apple and Option keys, and hitting the Escape key.

**4** If all else fails and you can’t break your Mac out of a freeze up, try hitting Apple-Reset (the button on the top right side of the keyboard that turns your Mac on). A small white window will pop up. Type “G Finder” and hit return. If it works, you’ll be dropped back into the Finder.

**5** If you use too much virtual memory, you can slow your system down; but if you never use virtual memory, most of your programs will want more RAM — sometimes twice as much. How do you know how much to use? When in doubt, give yourself exactly 1MB of virtual memory. This is probably your safest setting, and all of your programs will then need half as much RAM in order to run. Change virtual memory settings from the Memory control panel, and then restart.

**6** If you’re using 8.1 and you want to get the most out of your recently added RAM, go into the Memory control panels and hit the Use the Defaults button. This will bump up the Disk Cache based on your available RAM, so as to speed up the opening of menus and folders.

**7** To change the name of an icon, you click once on the name and wait for it to highlight. To speed up the process, click once and then move your mouse ever so slightly to one side. This is called a gesture.

**8** To take a picture of anything on your desktop, hold down Apple and Shift and tap 3. You’ll hear a “shutter” release, and a file called “Picture 1” will appear inside your hard drive.

**10** To capture a specific portion of the screen, use the Apple-Shift-4, and you’ll get a crosshair that you can click and drag to draw a rectangle over the area of the screen you want to capture.

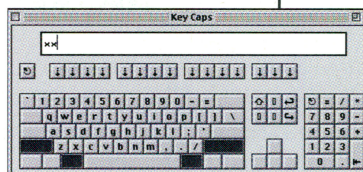
**11** If you hold down the Control key while doing either of the above operations, the picture will be placed automatically into your Mac’s clipboard, and you can paste it directly into any application that accepts graphics. No need to use an image-editing program in between!

**12** Want to print a whole bunch of files at once? Just select multiple files in the Finder, and issue the command to Print (Apple-P). The Finder will launch the program, print the files, and quit when you’re done.

**13** Using OS 8 or later, click on a menu once. It should remain in the open position. Now hold down Apple and hit Tab, and you can scroll through the other menus without using the mouse.

**14** Learn how to use disk images, with software such as Shrink Wrap and Apple’s DiskCopy. Sometimes when you download software, the files are saved as disk images (denoted with an “.img”). These files are essentially the same as disks, and you’ll need to work with them occasionally, especially for certain files that use installer scripts.

**Tired of KeyCaps**, that little cartoon keyboard that lives in your Apple menu? Tired of using it as a way of figuring out how to



make a bullet (•) or the symbol for infinity (∞)? Try Character Chooser ([www.esselte.com/letra set/catch/charactechooser.html](http://www.esselte.com/letra set/catch/charactechooser.html)), a free utility that shows you all of the characters in a font in a scrolling menu that’s easy to read.

**15** For Internet passwords, don’t use any number that someone else might have access to, such as your phone number. And don’t use simple English words, such as “tomato” or “flower,” since it doesn’t take much for a hacker to

run a program that tries all words in a dictionary. Make up a nonsense word with numbers and mixed capitals.

**16** To force an item to appear at the top of the Apple menu, put a blank space or an asterisk before the name of that item’s icon. To put it at the bottom, put a bullet in front of it. (See #17 for how

to create a bullet point.)

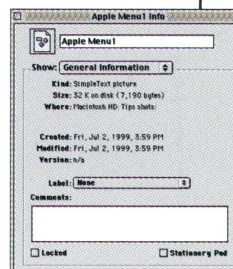
**17** Incidentally, the way to make a bullet (•) is Option-8, and the way to make an infinity symbol (∞) is Option-5.

**18** Auto-resize the columns in either AppleWorks or Excel by double-clicking between column headers. The columns will now be as wide as the widest entry.

**19** If you have two FireWire-equipped Macs, you can network them together using a FireWire cable. Then hold onto your hat, ’cause your files are gonna fly.

**20** Got a bunch of open Finder windows? Sure you do. And it’s getting mighty cluttered, too. You can close them all when you close one of them, as long as you hold down the Option key when you do so. And if you want to accomplish the same thing without using the mouse at all, just press Apple-Option-W.

**Incidentally, if you** want to get rid of a “custom” icon, just run a “Get Info” on the file, highlight the icon, and hit the Delete button. The original icon will appear, since it was hiding underneath the one you added all along.

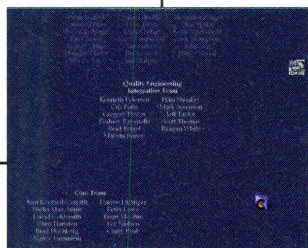




**22** If you're tired of the same old folders and putty-colored hard-disk icons, you can change them to something of your choice. Just copy the image (Apple-C), do a Get Info on the icon you'd like to change (Apple-I), and click on the picture of the icon in the upper left corner to select it. Then paste in the image you copied (Apple-P) to start using the new look.

**23** Don't forget — when you view the contents of a file as a List (as opposed to as Icons or Buttons), you can sort the list by Name and also by Date Modified, Date Created, Size, Kind, Label, Comments, and Version. Select which ones to show by selecting Preferences from the Edit menu of the Finder, then clicking on the Views tab. So if you want to see which files you've worked on

**In OS 8.5 and 8.6**, if you hold down the Control, Option, and Apple keys, the "About this Macintosh" item under the Apple menu will change to "About the Mac OS 8.5 Team." Select it and you'll get a charming listing of the folks who created the operating system.



recently but can't recall which ones they were, sort the list by Date Modified and see what floats to the top.

**25** To quickly jump from open application to open application, hold down the Option key and hit Tab. Each time you hit Tab while holding down the Option key, it moves you to the next open application.

**26** A "spring-loaded" folder is one that pops open whenever you hover over it with a file you're dragging with your cursor. It's a way of avoiding the seemingly endless amount of double-clicking required just to move a file. Turn on spring-loaded folders by choosing Preferences from the Edit menu when you're in the Finder.

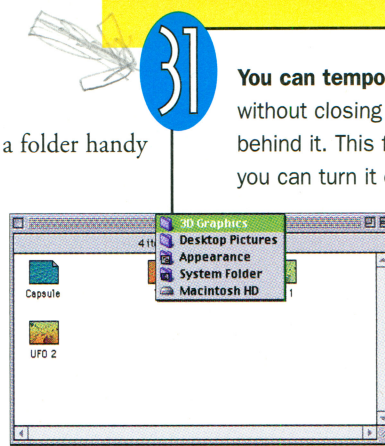
**27** Want to keep a folder handy but also tucked away? Drag it to the bottom of the screen where it will become a simple tab, like that at the top of a file folder. When you click on the tab, the folder pops open, and when you click the tab again, the folder collapses. To change a folder back to the way it was before, just click on a tab and drag it up from the bottom of the screen.

**28** With the Apple CD Audio Player, you can control CD playback right from your keyboard. The Left and Right Arrows switch songs, Apple-E ejects the disk, the Up and Down Arrows adjust the volume, and the space bar starts and pauses the music.

**29** Also in the CD Audio Player, if you hit the "Prog" button, you'll see two track lists instead of one. The one on the right will be empty, the one on the left will have a list of tracks. Drag the tracks from the left to the right in any order you like; the program will play them in that order. Also, you can

rename the tracks with the actual song titles (instead of "Track 1," etc.) and the program will remember the names next time you load the CD.

**30** If you've got a large folder with many items in it, no need to scroll listlessly until the file you're looking for appears. Just type the letter it starts with on the keyboard, and the first file that starts with that letter will be selected. To



**You can temporarily collapse** a window — without closing it — so you can see what's behind it. This feature is off by default, and you can turn it on by going to the Appearance control panel, clicking on the Options tab, and selecting "Double-click title bar to collapse windows."

move the selection forward through the folder, use the arrow key.

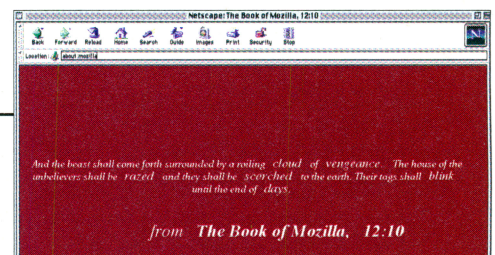
**32** Another "Easter Egg," as these hidden goodies are called, is a 3D, color version of the original "About The Finder" splash screen (as seen on the original Mac OS). Hold down Option and select the Apple menu.

**33** If you have an older (pre-G3) PowerBook and occasionally get a "sad Mac" at startup, try holding the power reset button (usually on the back panel) down for about 30 seconds. This resets the power circuitry and often cures startup troubles.

**34** Startup problems can also be cured sometimes by zapping the parameter RAM (PRAM) that holds some system settings. Restart while holding down the Option, Control, P, and R keys, and let the computer chime three times before letting go of the keys.

**35** In the QuickTime 4 player, you'll see a little handle under the main window. That's the Favorites drawer. Pull it out and you can store an unlimited number of movies and sounds right there. No need to search any more.

**If you are horsing** around online and have an extra few seconds to kill (and who doesn't; it's only a few seconds) type about: mozilla into the browser address window, and there you will find wise words from the Book of Mozilla. (Mozilla is the name of the little Netscape drag-on mascot who Netscape thought was too Hollywood for Wall Street.)





**37** Change the shape of OS 8.5's floating application menu from a vertical to a horizontal shape by holding down Shift and Option, then clicking the resize button (that's the one that looks like a small box inside another). Hold down Option when clicking that box and you'll toggle between smaller and larger versions of the same view.

**38** You can move a window around in the background without making it active (i.e., bringing it to the front). Just hold down Apple and click on the window you wish to relocate.

**39** If you're filling out a form, you don't need to use your mouse to move from field to field. Just hit the Tab key. And if you want to go backwards, just press Shift-Tab.

**40** Want to print just a section of a document in Word? Just select what you want to print, then issue the Print command (Apple-P). When the Print dialog comes up, select "Print Selected Text."

**41** To find a stock quote in Netscape, type in the word "quote" and the company symbol in the address window. Remember to use a space between "quote" and the company symbol.

**42** When you're Web surfing, it's easy to forget where you've been. If you want to find out which Website you saw that cool thingie on a few days ago, just type "about:global" into the address window, and it lists all sites (including the URL, date, and time) that you've visited, say over the past five days.

**43** When searching for a specific word in a text-heavy Web page, there's no need to strain your eyes scrolling through the page. Just hit Apple-F and you can search for the word quick-like.

**44** Say, you're looking for that cool image that you saw on a Website; type "about:cache" into the Netscape address window and it will list all files in the disk cache, including the image type and the last time it was modified.

**45** When using a dual-monitor setup, dragging one monitor image atop another in the "arrange" window will turn on mirroring. Handy for presentations.

**46** If you have another few seconds to kill, you can also type "about:marca" into the browser address window to view a photo of the inventor of the Netscape browser.

**47** Hold down Option while double-clicking on a bookmark in the bookmark window to see its properties.

**48** Hold down Option when clicking on a link to load the page to your hard drive instead of to the browser window.

**49** To download an image from the Internet, place your mouse over the image and lean on it until the menu appears. Then choose Download Image to Disk (Internet Explorer) or Save Image As (in Netscape). Remember, it's illegal to use images for any purpose without permission.

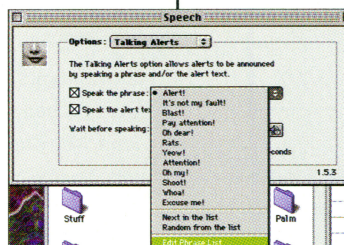
**50** Internet Explorer 4.5 Tip: To stop the current page from loading, hit the Esc key.

**52** Internet Explorer 4.5 Tip: To reload the current page in the browser window, hit the F5 key.

**Your Mac can speak** the contents of dialog boxes. You have the option of speaking the actual dialog text, as in "Alert! That file is

missing" or speaking your own phrases, such as, "Does your dad know you're using his computer?" whenever there's an alert. Go to the Speech control panel and select "Talking Alerts." At

the "Speak the Phrase" pop-up menu, you'll see an option for "Edit Phrase List" at the bottom. Add your own phrases!



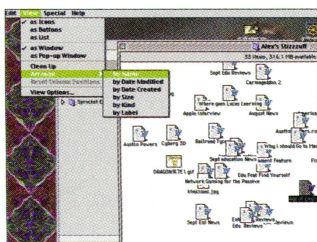
**54** Finding the hidden characters has been a favorite pastime of Mac Users since the year 1 (1984). Choose the OS 8.x Charcoal font in Simple Text, hold down Control-G, and it will generate the keyboard symbol for the Option key.

**55** Keep holding down the "Back" key on your browser, and you'll see a list of the last few sites you visited. It's handier than using a pull-down menu.

**56** Speed your startup time and application launch time by installing only the fonts you need in your system Fonts folder. Fonts take up memory, and each application has to keep track of all fonts.

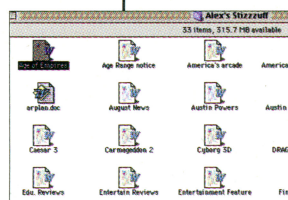
**57** Like your physical desktop, your Mac desktop gets dusty and grimy, and that may prevent your icons from showing up correctly and cause other problems. To remedy that, rebuild your desktop. Simply boot up while holding down the Apple and Option keys. Click OK when asked if you want to rebuild. (Hint: Always rebuild your desktop after installing new software.)

**58** Need to retrieve a file from the trash? Select it and press Apple-Y to return it to its original location. To move a file to the trash in OS 8.5 and above, select it and press Apple-Delete. That way, you don't need to physically drag it to the trash.



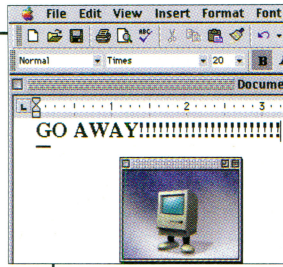
The Finder's "Clean Up"

function, located under the "View" menu, will arrange your carelessly strewn icons into neat, orderly rows.





**Is that little dancing Mac in Microsoft Word getting on your nerves?** Click on him and select options. From here you can turn him off, change what he looks like, and even tell him to go ... well you get the idea.



**60** To reorder items in the Control Strip, hold down Option while clicking and dragging an item.

**61** To collapse all windows in a particular application, Option double-click on the title bar.

**62** In OS 8 and above, the thick borders around the sides and the bottom of windows can be used to drag windows around the screen.

**63** To navigate the folders of your hard drive, place an alias of your hard drive in your Apple Menu Items folder. To make it appear at the top of the list, put a space in front of the name of the drive. Be aware that doing this will cause the Appearance control panel to slow down significantly.

**64** Go to your Appearance control panel and select the Sound tab. Select the "Platinum" sound set, and most every move you make will have a corresponding sound. If you hate the sounds, you can replace them with other sets. Take a look at [www.macplaza.net](http://www.macplaza.net) for a few downloadable ones.

**65** To reverse sort the contents of a folder in OS 8 and above, click on the little pyramid above the scrollbar in a folder's window. If the "point" points down, the window will be sorted in reverse alphabetical order.

**66** In the Finder, use the Tab key to move from icon to icon alphabetically.

**67** To hear a sound when your Mac starts up, place a sound file in your Startup Items folder.

**68** Select a document or application icon and use Apple-Down Arrow to launch or open it.

**69** To create an alias quickly, hold down Option and Apple while you drag an icon. When you let go, an alias for that icon will pop up.

**70** There are some basic keystrokes to help you navigate around dialog boxes. Apple-Up Arrow moves you up one level in the directory, Apple-D moves you to the desktop, and Tab moves between the file window and the text box.

**71** In the Finder, hold down Apple while clicking on the title of the window you're in. A drag-down menu of the directory that folder is in will appear. From here you can open folders without going through your hard drive.

**72** Hold down Option while opening a folder to close the window you are currently in after the next one opens. This will help keep your screen open. A word of warning: this one can become addictive.

**73** If you have an older Mac, such as a Quadra or LC, you can use a set of headphones as your microphone. Simply plug the headphones into the microphone jack and you've got a mini-recording station.

**74** Got an old, nonworking Mac Plus or Classic lying around? Grab some tools and take out the picture tube. Use some store-bought glass to replace the monitor, seal up the insides, and you've got a really cool fish tank!

**76** If you can't get the CD to eject by dragging it to the trash, try highlighting its icon and then pressing Apple-Y.

**77** If you're getting jealous of your Windows-using friend because he has a screen saver, don't stress: Screen savers are completely useless. It would take almost 12 months for a monitor to be damaged due to lack of activity on the screen.

**78** In most applications, such as Explorer, Netscape, and most word processors, Apple-." (period) can be used to halt processes. This allows you to stop a page from loading in your browser or halt an item from being printed after you've sent it to the printer.

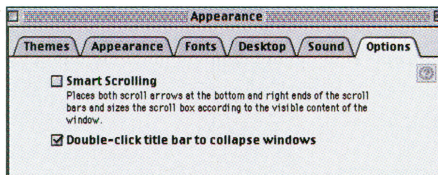
**79** Annoyed by that warning every time you go to empty the trash? Select the Trash icon, do a Get Info command (Apple-I), then uncheck the box that says, "Warn before emptying."

**80** Remember, most Finder tasks can be accomplished by holding down Control and clicking on the screen. This will bring up a contextual menu that places many commonly used commands at your fingertips.

**81** To duplicate an item in the Finder, hold down Option and drag the icon to the window you wish the duplicate to reside in. This will create an exact copy of the file you dragged. This is also useful for copying items from the desktop of a disk to the desktop of your hard drive.

**82** In the QuickTime player, if you hold down Control and click on the fast-forward or reverse buttons, you'll get a small scroll lever that will play the movie quickly in either direction.

**83** Hold down Shift as you select the volume control in the QuickTime player; you'll see three little marks on the slider that are useful when trying to remember sound settings.



**In the Appearance Control Panel under the Options tab are**

two essential preferences. The first allows you to double-click on the title bar of a window to collapse it, and the second moves the scroll arrows at the side of a window next to each other. When you first turn on your Mac after buying it, these two options are set to off and on respectively. It makes for smoother sailing if you switch them on and off respectively.



**84** Don't skimp on the paper if you want great-looking results from your color inkjet printer. Try glossy or film-type paper and you'll be pleasantly surprised.

**85** To find the original of an alias, highlight the alias and press Apple-R.

**86** Click and hold on the icon that appears on a folder window's title bar, and you'll get a ghosted image of the icon. You can now move the icon — and the folder — anywhere on your hard drive.

**87** Don't fret about the annoying "This system was not shut down properly the last time it was used" dialog box interfering with your restart — it goes away after five minutes even if you don't click the OK button.

**88** In OS 8.5 or newer, you can resize the columns in a Finder window (when you're in the "View as List" mode) just by clicking on the line between the columns and dragging it to the desired width.

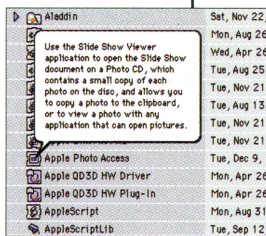
**89** In Netscape, use the User Profile Manager to keep separate sets of bookmarks, e-mail addresses, and other preferences for various users.

**90** If your laser printer starts printing poorly, you may be low on toner. Before running out and buying a new cartridge, shake the old one gently from side to side. Don't do it too vigorously or you *may get toner* everywhere.

**91** In Sherlock (or Find File), hold down Option when holding down the first menu item (usu-

92

**Turn on Balloon Help**, open the Extensions folder, and put the cursor over the any extension. Much of the time, you'll get an explanation of what the extension does. Be sure to try it with the QuickTime extension in particular.



**97** With OS 8.5 or higher, you can control many functions on your computer by voice alone! But it's not part of the standard install. Get out the *MacHome* CD-ROM that came with this issue and install Speech Recognition (in the Apple Updates folder). If for some insane reason you don't have this CD, get an original OS 8.5 or higher disc, go to do a custom install, and deselect everything except Speech Recognition. *Now you're talkin'.*

**98** Select any text (in any drag-and-drop compliant application) and drag it to your desktop. You'll get a text clipping that you can read without opening the originating application. Try it with Web pages — drag the URL to your desk and it's like a bookmark. It works with images too!

**93** Hold down Option and place the cursor over the pointy end of the control strip. Now you can move it up and down, if not side to side.

**94** You can roll up all the windows in any application, including the Finder, by holding the Option key and clicking in the Windowshade button (in the upper right hand corner).

**95** If you have trouble printing Web pages because they go outside the printable area of your paper, and hence you get useless extra pages when printing, try reducing your printing scale in the Page Setup function (under the File menu). Try reducing it from 100% to 85%.




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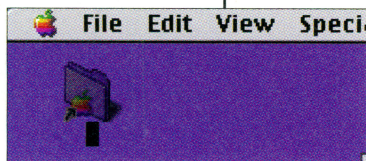
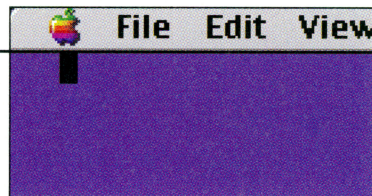
**100** Get a random pictures on your desktop each time you restart! Take a bunch of pictures, put them in a folder, and open the Appearance control panel. Select the Desktop tab and drag the entire folder into the Desktop picture window.

**101** Don't worry too much about surge protection if you have a PowerBook G3. It's built into these models.

**102** Hold down Apple while dragging any icon, and it will snap to an invisible grid on your desktop. This keeps things neat with antlike conformity.

**103** Subscribe to *MacHome's* weekly hot tips service at [www.machome.com](http://www.machome.com) to get tips like these delivered hot and fresh right to your Mac. 

**To quickly place aliases** of items in your Apple menu, try this. First, make an alias of the Apple Menu items folder (it's in the System folder) and put it on your desktop. Now "rename" it with no name (just hit the space bar instead of typing anything). Then drag that folder up to the top left corner of your screen so it's right below the Apple menu itself. Now, when you want an alias of an item, just Option-Apple-drag it (see Tip #69) to that folder and it will appear, as if by magic, in the Menu Items folder when next you scroll down. Only it's not really magic.



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# Databasics

BY JEFF BATTERSBY

## CREATE YOUR OWN ELECTRIC LIBRARY



**I**s it your *Bug's Life* collectibles that you want to keep track of? Or is it that nifty collection of 19th-century *leiderhosen* — each with its own incredibly colorful history — that you're dying to catalog? Whatever the case, a good way to make your job simpler is by creating your own database. And we're going to get you started, using a free FileMaker demo that you can download from [www.filemaker.com](http://www.filemaker.com).

In this workshop, we're going to show you how to create a database for your CD collection. But the beauty of databases is that once you've learned the basic principles, you can apply them to the particulars of your individual project. Once you get started, you'll realize the possibilities are practically endless!

### But What Is a Database?

While it's possible that you may not be certain exactly what a database is, there's not a chance in the world that you haven't already used one. Any time you've opened a phone book, perused the card catalog at your local library, or written a check number in your checkbook, you've been using or maintaining a database. In a computer, a database is an organized collection of records that stores information in fields. So, in an address book application, for example, the first name of each contact would be stored in a field, as would the last name, address, city, and so on. And all of the fields that correspond with that contact would make up a record, and a collection of records make up your database.



Laying the Groundwork

Your database is going to consist of a single file with eight fields: CD ID, CD Name, CD Artist, CD Genre, CD Description, CD Location, Purchase Date, and Purchase Price.

To get started, open FileMaker Pro. You'll be greeted with a window asking you to create a database from a FileMaker Pro template or from a new empty file. Select the "New Empty File..." button and then click "OK." Click the "New Folder" button and create a new folder named "CD Collection File." Then name your database file "CD Collection File" and click the "Save" button. Now you're ready to begin defining your fields.

Defining the Fields

Right after you click the "Save" button, a new window appears on your screen called the "Define Fields" window. This window is where you will name all your fields and, if necessary, define specific options for each field.

Take a closer look at this window. At the top is a section — currently blank — that will contain pertinent informa-

tion that can be stored in those fields.

For this database we will only be using the Number, Text, and Date field types.

Finally, the section to the right of the Type section is a collection of buttons with which you can duplicate, delete, save, or add options to a field.

Let's begin by adding our first field to the database. Click in Field Name, type "CD ID" and then select "Number" as the field type. When you're done, click the "Create" button. You should now see your first field appear in the top window.

For this database, CD ID is the only field for which we will need to add options. To do this, you need to click the "Options" button while the CD ID field is selected in the top window. Make sure the field is selected and click the Options

Field Name	Field Type
CD Name	Text
CD Artist	Text
CD Description	Text
CD Genre	Text
CD Location	Text (You'll use this field to remind yourself where the CD is currently located.)
Purchase Date	Date
Purchase Price	Number

Table 2: Here's how to create the fields you'll need for your CD library.

Now click-and-hold the pop-up menu that says "Auto Enter" and select the item that says "Validation." In this window check the boxes that say "Unique" and then check "Strict: Do Not Allow ... etc." (Note that the "Strict" checkbox will not appear until you put a check in the "Unique" check-box.) When you're done, click the button that says, "OK."

Text

Letters, symbols, and numbers (up to 64,000 characters)

Number

Numbers, letters, or symbols (up to 255 characters)

Date

Dates only

Time

Times only

Container

A picture, movie, sound, or OLE object

Calculation

The result of a calculation formula. The result can be text, a number, date, time, or container.

Summary

The result of a summary formula that uses field values from more than one record in the same file. The result can be a number, date, or time.

Global

One value used in all records of the file. The value can be number, text, date, time, or container.

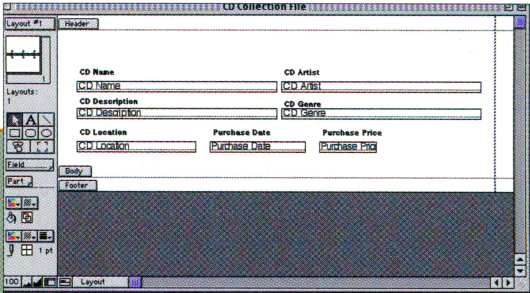


Figure 1: This is the way we're going to lay out the fields.

So what have you just done here? First, you told FileMaker Pro that every time you create a new record in your CD Collection File, you want the CD ID field to automatically contain a new serial number for each new record in the database. You also told FileMaker Pro that you want this number to be unique — that you never want anyone to be able to type a number in this field that matches any other record in the database.

The rest of the fields won't be as difficult to create. Use the list in Table 2 as a guide to help you define

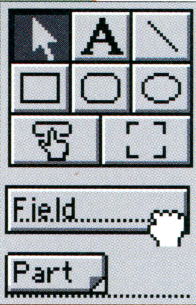


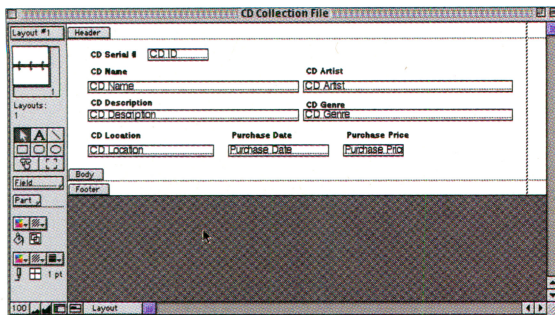
Figure 2: Grabbing the ol' field tool

Table 1: Here's a list of fields you can add, and what they can store.

tion about the fields that you'll create. Below that section is the Field Name, which is where you will type in the name for each new field you'll create. Just below the Field Name is where you define the type of information you want to store in the field. Table 1, above, is a summary of each of the data types you can define and the types of information

button now. You should see a window titled "Entry Options for field 'CD ID.'" In this window you want to check the box that says "Serial Number," and you want to make sure that the "Next Value" and "Increment By" fields both have the number 1 in them.





**Figure 3:** Now we've added back the CD ID field, and we've also added a header.

each new field. Type the name of the new field over the selected name, select the appropriate button, and then click the Create button.

When you've finished, click the Done button to close the Define Fields window.

### A Pretty Face

You've probably noticed that FileMaker Pro's initial layout leaves quite a bit to be desired. Not only is it flat and boring, it also provides no simple means of navigating or adding new records to your database. You're about to change that.

Using layouts is the way you present information in FileMaker Pro. You are going to rearrange the original layout so that it better suits your needs.

With the "CD Collection File" file front-most, look at the lower left-hand side of the window. You should see a pop-up menu that says, "Browse." (It might also say, "Preview," "Find," or "Layout," if you've been playing with the program at all). If the menu doesn't already say, "Layout," click-and-hold the menu and select "Layout." Take note of the tools that now appear on the left-hand side of the window. These tools allow you to place fields, text, and buttons on a layout.

Before you do anything, click on the CD ID field and drag it around on the layout. This is the way that you change the position of fields on a layout. Now, with only the CD ID field selected, press the Delete key one time. You should see the CD ID field disappear from the layout. (Not to worry. We'll add it back in a few minutes.) You should also find the

CD ID title and delete it too.

Now it's time to rearrange the fields. Take a look at the example in Figure 1. This is the way that we want our layout to look. Drag the fields around on the layout until they are arranged as shown.

Be sure to leave enough space between the "CD Name" field and the Header area to add the "CD ID" field.

Once you're done arranging the fields, it's time to bring back the "CD ID" field. Using your mouse, grab the Field Tool (Figure 2) and drag it out onto the layout, just above the "CD Name" field. When you're satisfied with the placement of the field, let go of the tool. As soon as you let go, a new window will pop up asking you to specify which field you want placed in this new position. Make sure there is a check in the box

that says, "Create field label," then select "CD ID" from the list and click the "OK" button.

Once you're satisfied with the arrangement of the "CD ID" field, double-click the "CD ID" title (the bolded

words that say "CD ID") and change the title from "CD ID" to "CD Serial #." Once you make this change, you may need to rearrange the fields again. Your layout should now look like the example in Figure 3.

### A Valuable List

A "value list" is a slick way of adding information to your database without having to re-type repetitive data. Using value lists will also keep you from inadvertently adding incorrect data to your database. You're going to add a value list to the "CD Genre" field.

In Layout Mode, click the "CD Genre" field one time. Then click the Format menu and select the item that says "Field Format." You should now see a window that says, "Field

Format for CD Genre." Click the pop-up menu that says, "Pop-up list" and then select the item that says, "Pop-up menu." You should note that to the right of "Pop-up menu" it says, "Using value list <no list defined>." Click the menu that says, "No list defined" and then select the item that says, "Define value lists..."

In the next window that appears, type "CD Genre" in the "Value List Name" field and then click the Create button. Make sure the "Use custom values" button is selected, and then begin typing the following names in the window to the right of the button, pressing Return after each entry: Alternative, Classical, Hip-hop, Jazz, Modern Rock, Pop. Feel free to add any other music genres, then press the Save button and click "Done." Then click "Ok."

To see how your pop-up menu works, switch to Browse Mode and click on the CD Genre field. A menu will pop up displaying your CD Genre list. If you want, you can also add a Value List to the "CD Artist" field. If you do, be sure to put a check in the "Include 'Edit...'" item to allow editing of a value list. This will make it much easier to add a new artist to your value list.

### Right on the Money

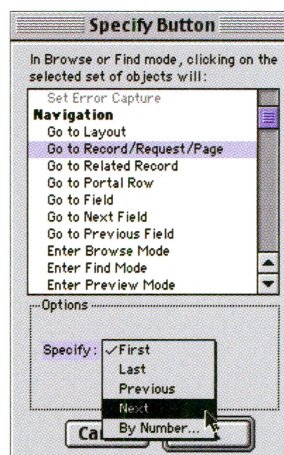
Currently, if you type a number into the "Purchase Price" field, you end up with simply that — a number. But wouldn't it be nice if when you type a number into this field, it displayed as currency, with a dollar sign and two numbers to the right of the decimal point?

In Layout Mode, select the "Purchase Price" field. Then click the Format menu and select "Number..." A window will appear that says, "Number

format for 'Purchase Price.'" Find the button that says, "Format as decimal" and select it. Once you click this button, several new check-box options will

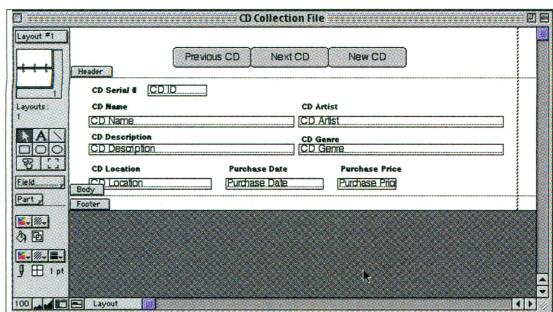


**Figure 4:** Ye Button Tool



**Figure 5:** The Specify Button dialog box





**Figure 6:** Here we have the final layout, complete with navigation buttons.

become available to you. Find the checkbox that says, "Fixed number of decimal digits" and put a check in it. Make sure that the value in the following window is the number two. Next, put a check in the box that says, "Use notation: Currency (leading)," and make sure that the currency symbol is a dollar sign. Click "Ok." (FYI – other possibilities in the "Notation" field are "Currency (trailing)" and "Percent.")

## Getting Around

The final step in your project is to make it easier to move from one record to the next and to add new records to your database.

If you're not already there, go back to Layout Mode. Then click on the box that says, "Header" and drag it down about one inch.

Next, select the Button Tool (Figure 4) by clicking on it, and use it to create a new button in the header area. Click the crosshairs and drag it over to the right and down a bit to create a new button.

Once you let go of the tool you will see the "Specify Button" dialog box appear. Scroll down to the section that says, "Navigation" and find the item that says, "Go to Record/Request/Page" and click it (Figure 5). In the "Options" section that appears at the bottom of the window, select the item that says, "Next." After you're finished making these changes, click the OK button.

You should now see a button with a cursor blinking in the middle. Type the words "Next CD" and click outside of the button. Clicking this button in Browse Mode will jump you to the next record in your database.

Follow the instructions above to create a second button — only this time select "Previous" in the pop-up menu. Then type "Previous CD" in the button. Finally, create a third button, and this time scroll down to the "Records" section and find the item that says, "New." Click "OK," and then type "New CD" in the button. Then

arrange your buttons so that they look like the example in Figure 6.

## Try It!

Now it's time to give your database a ride. Switch to Browse Mode and click the "New CD" button. You should see the number 2 pop up into the "CD Serial #" field. Type in the information for a CD, using the Tab key to move from field to field. Repeat this process with another CD, and then use the "Previous CD" and "Next CD" buttons to jump back and forth between records.

## Where to Go Next

Congratulations! You've just created a custom database. While this is the end of this article, it doesn't have to be the end of what you can accomplish with this database. Try a couple of the following ideas to see if you can pull them off.

■ **Create a "Report Layout" that will provide a list of all your CDs.**

■ **Define a new button that will automatically take you to your report layout.**

■ **Define a new button that will sort your CDs by artist and another that will sort your CDs by purchase date.**

If you get stuck, you'll find a completed copy of the database on the *MacHome* Website ([www.machome.com](http://www.machome.com)). You will also find a copy of a CD Lending Library that is an extension of the database you've just created. **MH**

# Additional Resources

**A**s you get into the nitty gritty of creating databases, and as you begin to yearn for slicker and more-elegant solutions to common problems, you'll soon discover the beauty of templates. Database templates are ready-made databases that generous, hard-working database authors make available to the general public. You'll find them on the Web, where you'll also find tons of other useful resources for your database-building endeavors, such as tutorials, tips, and shareware.

## FileMaker Today

FileMaker Today is a Website with enormous amounts of resources, and it offers everything from tutorials, questions and answers, a guide to FileMaker plug-ins, dozens of free buttons, and icons to other interface niceties.  
[www.filemakertoday.com](http://www.filemakertoday.com)

## Chris Moyer's FileMaker Home Page

This site represents a true labor of love. Here you'll find a vast collection of resources for all things FileMaker, and a copious number of templates for every occasion. Here you'll find "Check Register," a database for entering checks and deposits, "TimeCard," for keeping track of your billable phone calls, and a template for adding password protection to your own database.  
[www.mindspring.com/~fmpro/](http://www.mindspring.com/~fmpro/)

## Power Files

You needn't feel lonely, slugging away at your own database — not with sites such as Power Files on the Web. Here you'll find chat facilities, with which you can fraternize with your fellow databasers long into the wee hours. You'll also see examples of FileMaker as it's used on the Web, a bunch of useful tips and tricks, and a humongous assortment of templates. The templates are searchable by name, but if you just want to browse, just hit the Find button, with nothing entered in the Search field. That will get you the whole list.  
[www.powerfiles.com](http://www.powerfiles.com)





# Lights, Camera ... Washing Machine!

Use Your Mac to Put  
Your Home on Auto-Pilot

By Alan Stafford

**Clap On!** When it comes to automating your home, you most likely think of the Clapper switch. Either that or it conjures up images of Star Trek-like environments in which humanoid robots respond to your every whim. But the current sophistication level of home automation lies somewhere between those extremes. While you can't get "tea, Earl Grey, hot" to appear out of thin air with a simple voice command just yet, you can control almost anything that plugs into a wall and make those devices work together for your benefit, all by injecting your Mac into the equation. At the most basic level, you can use automation to make the lamp in your front room turn on before you get home at night. But here's a more advanced example: A motion detector senses activity in your entry way at 6 p.m. — you're coming home. Instead of sounding an alarm and calling the police (as it would have at 5 p.m.), your home-automation system has pulled the drapes closed, set the air conditioning to a comfortable level, started some soothing music playing on the stereo, booted up your Mac, and checked your e-mail. And that's just the beginning.

## Automatons for Automation

Almost all do-it-yourself home-automation technology is based on the X-10 protocol, which was invented by the company of the same name. A few other automation methods exist, but



they're much more expensive, since they require professional installation. Dave Rye, vice-president and technical manager of X-10, said that the company has shipped 100 million X-10 devices, and an average user has 20 devices. Do the math, and you get five million home-automation aficionados worldwide. And because X-10 has held a patent for a number of years, the vast majority of home-automation devices are X-10 compatible.

"The original X-10 was marketed toward the typical computer user," said Jeff Smeenge, vice-president of marketing for MouseHouse, a company that makes MouseHouse Mac automation software. Now, he said, it's marketed toward people who aren't into electronics as much. But despite X-10's success, Rye said, "It still tends to be the techie type of person who uses it." That's because most of us grew up being perfectly comfortable using good old-fashioned light switches — who needs a gadget to turn them off and off? The perception is that such devices introduce complexity where it isn't needed. But with the wide variety of inexpensive devices and the ease with which anyone can hook them up, home automation isn't just for gadget freaks.

X-10 is ridiculously simple. No matter what kind of home you have, you don't have to string any wiring. It uses your existing electrical wiring to connect devices such as lamps, appliances, and security devices in a house-wide network, so anywhere you have an outlet, you have a network connection. Almost anything electrical can be automated with a very inexpensive device, and you only have to set a one- or two-digit number on each device to get it up and running. You can add additional devices to your automation system at any time without disturbing the others. None of the devices is likely to become obsolete; X-10 has used the same technology for more than 20 years, and it doesn't need constantly updated hardware.

You plug each electrical device into a small module, then plug the module into the wall socket. "Anything that plugs into an outlet can plug into our modules," Rye explained. You can also

# Dim the Lights, Feed the Pets

install X-10-compatible in-wall devices, such as thermostats and light switches.

An electrical signal "piggybacks" on top of the 120V current flowing through your house, and the devices monitor the current, looking for signals that are directed to their addresses. You give each module a unique address so you can easily pick which device turns on or off when you want. For example, you can set the front room lamp as "A-1" and the thermostat to "B-2." You set the address on an X-10 module by turning two dials on it, one for a "house code" and the other for a "unit code."

A controller module (\$15 and up) stores the addresses of multiple devices. It plugs into a wall outlet just as the appliance modules do, and you can keep it anywhere in the house. The controller module communicates with the appliance modules via your house's electrical system. You can use the controller to turn devices on and off remotely or at different times, and you can also store macros (series of events) in the controller module. You can set up commands directly on the controller module, or you can use radio frequency or other devices to send and store commands to it. You can even use a television-like remote control to make appliances do your bidding. And of course, with a computer interface and software, you can issue commands with your keyboard and mouse.

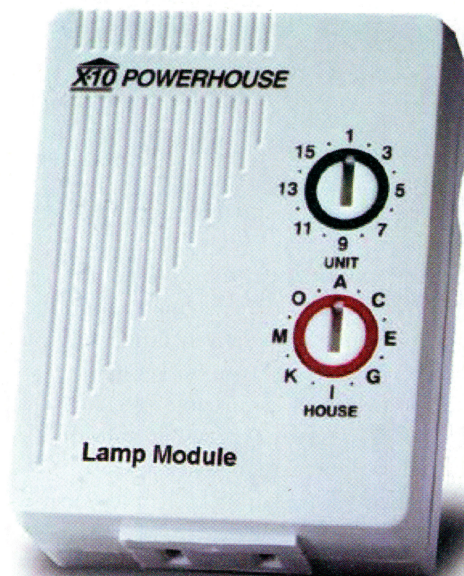
## Kilowatts for Kibble

Home automation sounds like an expensive proposition, but you can start with it pretty cheaply. X-10 sells a teaser kit that includes one RF (radio frequency) module and one lamp module for the cost of shipping (\$6), though that doesn't include any software. You can pick up many modules from Radio Shack (which has car-

ried X-10 products since X-10 began), or buy them from several Websites, including X-10's and MouseHouse's sites.

Basic automation functions don't require a computer, because you can set simple on/off commands on the controller module. However, you do need a computer for more complicated routines. One nice thing about X-10 is that none of the components (neither the controller nor the appliance modules) can tell a Mac from a PC — as long as you have a computer connection module and Mac-compatible controlling software. An old-fashioned Mac serial cable and an adapter connect your Mac to the computer module. You can buy the computer module and software separately, but you can get a starter kit that includes both (plus additional equipment) for a little over \$100.

MouseHouse's starter set — including automation software; one lamp module; a controller module; a computer module with a Mac adapter; an RF module with integrated appliance module, allowing you to issue commands from wireless





devices; and a wireless remote control that sends commands to the RF module — runs about \$120. This will allow you to automate one lamp (lamp modules can only handle minimal wattage) and one higher-wattage appliance, create macros for them on your computer, and also control the light and appliance via the remote control. That isn't much, but additional lamp modules cost less than \$10 apiece and sometimes less than \$5 apiece. Appliance modules cost a bit more because they handle more wattage. More specialized components (e.g., motion detectors, thermostat interfaces, etc.) cost more, but you can add them one by one as your budget allows.

The bills start adding up when you start adding functions. You can get security systems, motion sensors, keychain remote controls, thermostat controls, automatic pet doors and feeders, tele-



phone interfaces (so you can call ahead or from out of town), intercoms, plant watering systems, motorized drapes, and even voice-control systems. But most of the devices are pretty inexpensive, and you can build in a tremendous amount of automation for relatively little money. "For \$500 to \$600, you can set up something that's comparable to \$10,000 to \$15,000 systems you see in commercial home-automation systems [that require extensive wiring and professional customization]," says Michael Ferguson, founder of Sand Hill Engineering.

## One Way or Another

Until now, most X-10 devices have been of the "one-way" type: you can send them instructions (e.g., on, off, etc.) but they can't talk back. Recently, however, "two-way" devices have hit the home-automation market, thereby enabling more-sophisticated functions, because they can both transmit and receive a signal. For example, you can instruct a one-way device to water the lawn, but it can't tell you when it's created a small lake of your front yard. A two-way device, if so enabled, can sense the moisture and turn itself off.

However, Smeenge said two-way devices are more expensive, and much of their functionality can be accomplished by using a computer. The ActiveHome module, which is one of the X-10-compatible controller modules, can store up to 100 macros for use with one-way devices. For example, you can have one macro turn on several lights, start the coffee maker, and turn up the heat on the thermostat.

tion software title. Michael Ferguson created Xtension, and he insists "Automation requires real feedback." He described how his long driveway has a dozen motion detectors along its path, and all the detectors are hooked into a Mac running his software. The system can tell whether a person, animal, or vehicle is walking, running, or driving up the driveway by gauging the speed and the number of sensors it trips. "If you drive up my driveway while I'm gone, there'll be a picture of your car on the Internet before you get to the front door," he said.

A major difference between the two software titles is that XTension requires its host computer to be on continuously — instead of an ActiveHome module storing and handling all the commands, the commands are stored in a database and the software implements them as needed. "You don't want to run XTension on a Mac that you're going to be using all the time — playing games and browsing the Internet," Ferguson

# Control your Appliances through the Wires

MouseHouse creates those macros on your Mac, then stores them in the ActiveHome module. On the plus side, that means your Mac doesn't have to be on for your home to be automated. However, the ActiveHome module does have some limitations. "If you want 'if-then' logic, then it's going to take a lot more smarts," Smeenge said. In other words, the ActiveHome module can't enable an "If the phone rings when the stereo is on, then turn the volume down" action. To get that kind of functionality, you'll need the more capable (two-way) modules.

Another option is Sand Hill Engineering's Xtension, another automa-

said. However, XTension doesn't require much computing horsepower. "It can run on a Mac Plus," he said, "and everyone's got these 'closet' Macs." He's suggesting running the software on a computer that's hidden away yet is accessible to another Mac via a network. So, you can store complicated commands on a seldom-used, low-powered computer that's hidden away, but you can program it from your everyday machine. MouseHouse isn't much fussier, requiring only a color Macintosh with 16MB of available RAM.

Another company, Always Thinking Inc., is introducing its own Mac automation software, called Thinking



Home; it should be available in mid to late August. Bruce Lawton, vice-president of Always Thinking, says the software will work with one- and two-way devices, and it will offer AppleScript and AppleGuide support. He says it will cost around \$39 when it's released.

### Holy Macro

"The only hard part about home automation is figuring out what you want to do," said Ferguson. He's got a point; whether you're using MouseHouse or Xtension, the software is the hardest part of the setup, but even that's pretty simple. Once all of the device modules have unique addresses, you enter the devices that are attached to them (for example, a bedside lamp) and their addresses, define what you want the device to do (turn on), then set the time at which you want the action to happen. MouseHouse lets you set the days of the week on which you want an action to occur and how much you want to dim a light. You can combine several actions into a macro. Name the macro "Bedtime Routine" and include actions not only for the bedside lamp but also to turn off all the other lights, turn on the security system, and turn down the thermostat.

XTension is similar, to a point, because most of the devices it controls are similar. But XTension is built on AppleScript, so the application is extremely flexible. XTension has a built-in script editor, with a menu of frequently used commands, and most of the scripts you'd use for home automation are very simple, so learning to create new scripts is easy. "It's one of the nicest ways to get into AppleScript," said Ferguson. Even if you don't use the scripting functions, you can still use XTension for basic commands, and learn the scripting as you become comfortable with the application.

Here's a sample home-automation script that connects your Mac to an outside light detector and turns on your bedside lamps if the sun is coming up. As you'll see, the language is not quite plain English, but it's not too hard to understand either.

```
if (value of "Outside Light Sensor") >
50 then
  brighten "Bedroom Lamps" to 100
end if
```

### I'm Getting Strong Signals

Because X-10 is a relatively simple technology, most problems are minor, and their solutions are pretty easy. Still, here are a few hitches you may encounter.

The experts we talked to agree that signal propagation is the most common problem: devices don't receive commands reliably or at all. Rye says that X-10 was designed to be used in typical houses with typical electrical systems, and noise cancellation and error correction are built into the devices, so line noise isn't the problem, but signal strength can be, especially if the house in question is large. The quality of the lines apparently isn't a factor. "Older houses haven't been too much of a problem," said Smeenge. The solution is to limit the distance to remote outlets as much as possible, and also to bridge 120v circuits across 240v circuits where possible — the signals can't always travel over both.

Security isn't a big issue, fortunately. Conceivably, a burglar could plug an X-10 controller module into an outside electrical socket or use an RF controller to gain access to your network, but the burglar would have to know the unique code for your garage door to open it, or guess which of the 256 numbers works.


Always Thinking's Lawton says it's unlikely your average burglar is going to know you're using X-10, and he's even more unlikely to know how to use an X-10 controller to get inside your house.

Lawton points out that sometimes the biggest problem isn't technical — it's the family members who don't appreciate the lights going on and off on their own. "One solution to the family conflict is to have one schedule for when you're at home that does not turn off indoor lights," he said. "Set up a second schedule for your time away that also operates the indoor lamps."

X-10 does not support USB yet, but iMac owners aren't left out: Smeenge assures that X-10 works with iMacs and blue G3s via USB-to-serial cables.



### We're Going on Auto-Pilot


Home automation is a fun way to integrate your Mac into your home life. It's relatively inexpensive, and it's only as complicated as you want it to be. Clap Off! 


## Home-Automation Resources

### MouseHouse 2.06



\$70, MouseHouse  
800-238-5149  
[www.mousehouse.net](http://www.mousehouse.net)


 Easy to set up, doesn't require computer to stay on


 Doesn't control two-way devices, limited functionality

### Xtension 2.2.3



\$100 (includes serial converter cable), Sand Hill Engineering  
407-349-5960  
[www.shed.com](http://www.shed.com)

 Works with two-way devices, allows extensive customization

 Computer must stay on, harder to learn

### Not Rated

#### Thinking Home

Always Thinking, Inc.  
800-556-9559  
[www.alwaysthinking.com](http://www.alwaysthinking.com)

#### X-10

[www.x-10.com](http://www.x-10.com)  
800-675-3044

#### Home Automation Systems

[www.smarthome.com](http://www.smarthome.com)

#### Home Toys

[www.hometoys.com](http://www.hometoys.com)



## Professional Printing on a Home-Office Budget

**I**f you have a home-based business, chances are you don't do much in the way of four-color printing. Sure, you print in CMYK (cyan, magenta, yellow, and black) on your inkjet, but if you want to take your work out to be professionally printed, well, that takes big bucks. You have to start with a service bureau, where they'll output your work to film, and then take the film to a printer, where they'll crank your copies. Most of us, reluctant to part with this kind of money, have been satisfied with doing our marketing in plain old black and white, which is a lot cheaper, or better yet, on the Web, where publishing doesn't cost any more than your ISP's monthly service charge.

### Introducing Duotones

But a third option, and one that costs only a tad more than black and white, is simply adding a second color. Normally, these "duotones" are not going to look all that hot. (Have you ever looked at a good TV gone bad — one that displays its images in black and red?) But there are a few resources out there for getting some fairly snazzy results with duotones, and one such tool is Intense Software's PowerTone, a \$245 plug-in that works with Adobe Photoshop 4.0 and above. No, this is not cheap, but if you plan on doing a lot of printing, it will save you a bundle of money to pay a printer to use two rather than four colors.

### Powerful Tones

Normally, when you create a duotone in Photoshop, you have to work from a grayscale image. So first you've got to

reduce your color image to black and white (grayscale mode), then switch the mode to Duotone, select two colors, hit the OK button, and observe the result. With PowerTone, you can work with black-and-white or color images, greatly expanding the possibilities when it comes to translating the image into just two colors.

Here's how it works: Call up the PowerTone plug-in from within Photoshop's Export menu, and you'll be greeted by a double-preview window that shows your original on the left and your duotone on the right, with the two duotone colors along the bottom in pop-up menus. To tweak the colors, click on them to call up a color picker — or enter values by hand, if you're bringing in colors from a swatch book — that shows examples of printed colors along with the formula for creating them. Whenever you make a change in the colors, your duotone will automatically change to reflect it.

*Intense Software, 888-251-3586,  
www.intensesoftware.com*

### Color by the Book

Another problem with creating duotones in Photoshop is that it's difficult to see exactly what kind of color you're going to end up with, so you have to rely on a lot of painstaking trial and error. Pickerbook would like to help you out in this respect. This company produces the Duotone Guide (\$139), which includes a CD, two swatch books, and a tutorial booklet. The CD contains numerous presets that result in special effects, such as faux metallic output or

simulated sepia tone. Pickerbook also offers a larger, five-CD set for \$199. The swatch books are all Pantone certified, so you can be assured that the color you see in the swatch books is going to match the color you get back from the printing press.

*Pickerbook, 800-845-0330,  
www.pickerbook.com*



**On the top** is a four-color photograph. In the middle is a duotone created within Photoshop, using blue and red. On the bottom is a duotone created with PowerTone. Note the attractive range of colors that you can get by cleverly blending just two colors.



# Expand Your Views

**L**eaning forward and squinting at your monitor all day can be a pain and a strain, especially if it's work-related. So what to do? You can get a larger monitor or larger glasses, but Bausch and Lomb, the contact lens folks, have another suggestion: the PC MagnaViewer, a \$295 magnifier for your monitor. John Poultney, *MacHome's* intrepid editor, reports:

"My monitor, a sad, dusty 13-inch affair, was plucked from the *MacHome* server room specifically because it was thought to be the most pathetic, eye-challenging monitor we could find. And normally, that would be the case.

But now that the PC MagnaViewer is placed before it, the little chap is useful again, since it makes the screen appear larger than it really is. So I can deal with extended bouts of typing and onscreen text reading.

"The PC Magnaviewer is a bit of an ungainly and bizarre-looking accessory, reminiscent of the accoutrements in Terry Gilliam's 1985 film *Brazil*," continues Poultney. "And several people here at *MacHome* have comment-

ed on how portions of my face are made to look monstrously enlarged when viewed from the other side of the lens.

"But no matter — it has won my favor. Though it's not appropriate for all uses, it would be especially helpful in reducing eyestrain for those with vision problems. It's highly adjustable, so you can get a bit more comfortable when looking at a small monitor," Poultney explains. "Unfortunately, there is some noticeable distortion around the edges of the viewable area, and this is made worse by curved monitors. It's best with small, flat monitors. With a 20-inch monitor, I couldn't see the whole screen at once and experienced eyestrain when looking from one part to another."

Bausch & Lomb, 800-553-5340, [www.bauschvision.com](http://www.bauschvision.com)



## Now Shipping, from Your Mac

**L**est your parents think that you don't have a "real" job because you don't work in a "real" office, tell them that you can now dispense postage directly from home. Neopost's Simply Postage, previously only for the PC, has come to the Mac — yet another sign of the burgeoning Mac home-office revolution. Simply Postage is a half hardware, half software solution that lets you download postage from the Internet and print out stamps directly from a meter that sits on your desk. The unit also comes with an integrated scale, capable of weighing up to four pounds and accounting for all major classes, such as Priority, International, and so on. This not only saves you the hassle of having to go to the post office and face those interminably long lines, but it allows you the luxury of being able to purchase the postage whenever you need it. The initial package costs \$50, and there's also an \$18-per-month membership fee. Though this might seem like a hefty monthly price tag, it's consistent with other postal meter systems of this sort. *NeoPost*, 800-624-7892, [www.neopost.com](http://www.neopost.com)

## Egads! Efaxes!

**"S**ure you can send me a fax," you say, hesitantly, "but I have to run home and turn on my Mac, and then turn on 'Fax Enabled.' I'll call you when I'm ready." No, this is not a pretty scenario. But the likelihood of finding yourself in this less-than-glamorous situation doesn't necessarily mean that you, as a home-office professional, ought to run down to Office Depot to purchase a fax machine. Just head over to eFax ([www.efax.com](http://www.efax.com)), a Web-based service that will happily provide you with your very own fax number. Register with eFax without spending a dime, and any faxes sent to your personal eFax number will go directly to your e-mail box. And anyone who sends you a fax will be none the wiser.

Faxes arrive seconds after they're sent, and when they do, they'll be in the .tif format, a type of file you can open very quickly and easily with Graphic Converter, the robust shareware utility that won our Home Choice award for Best Shareware. Then, of course, you can print it out. It's not the best quality — it's a fax, after all.

Depending on the quality of the transmitting fax machine, tiny type could be partially filled in, and subtle shades of grey might just come out black. But eFaxes, just like many real faxes, are certainly serviceable.

Another Web-based fax service is MessageClick ([www.messageclick.com](http://www.messageclick.com)). It works much the same way as eFax, but it offers an additional service: Voice mail. A sultry women's voice guides your caller through the options, which will be sure to impress, if not to soothe, your future clients. Voice messages come through as RealAudio files, and once you have the RealAudio Player loaded ([www.real.com](http://www.real.com)), getting a voice message is quite smooth — the file size, compared to the length of the message, is fairly small, so it's quick to download, and the message comes through loud and clear even using your Mac's built-in speakers.



office @ machome.com



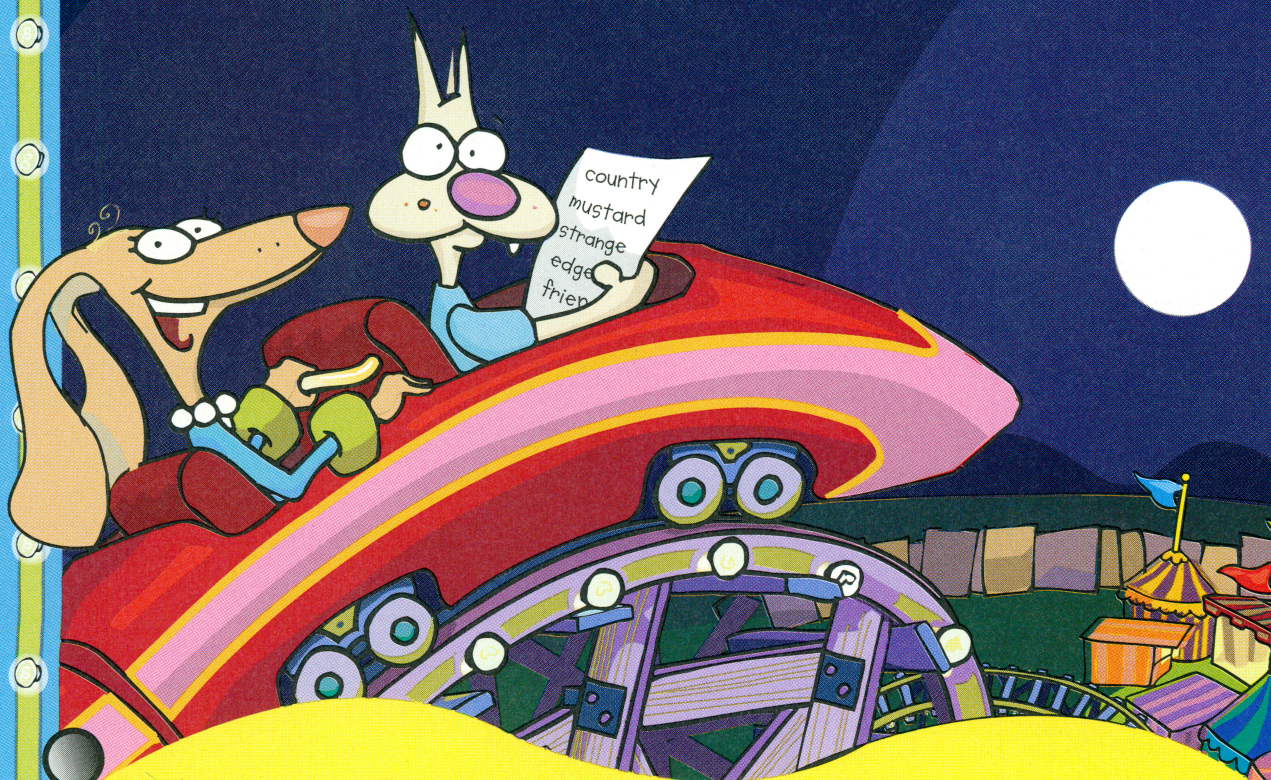


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## Video Editing for the Thrifty

### Strata VideoShop and Digital Origin's EditDV Unplugged

If you have a new or fairly new Mac, chances are you spent a good amount of money on it and would like to get the most out of it. And that's only natural. Say you spent \$1,500 on your system and would like to check out desktop video production — do you really want to go out and spend another \$900 or so on software? After all, you still gotta get a camera, and perhaps a tripod.

Well, if you're a video professional, that's one thing. But for those of us still trying to find ourselves — and we are legion — we don't necessarily want to spend a fortune to check out the basics of video editing. Fortunately there are two packages aimed squarely at thrif-minded folk.

Strata's VideoShop and Digital Origin's (formerly Radius) EditDV Unplugged are both \$99. (The list price for VideoShop is higher than that, but if you get Interex/XLR8's \$99 InterView video-capture device, it's bundled in. Go figure.) As its name implies, EditDV Unplugged is designed for use with DV equipment. However, it's reviewed here alongside VideoShop because it has many of the same functions and will output files as QuickTime. It's designed for use with FireWire-equipped Macs, such as the blue-and-white G3s. Digital Origin's \$400 MotoDV package includes a FireWire card for earlier PCI-based Macs that use a 604 or higher processor, so technically EditDV's FireWire can be used with earlier machines. FireWire video equipment typically delivers high-quality results, so adding this card to older Macs isn't such a

bad idea — consider about \$500 for MotoDV plus EditDV Unplugged versus the cost of purchasing a brand new G3.

Both programs are capable of basic video digitizing, wherein you hook up your camcorder and send the video directly to the computer; and both work with the DV (digital video) format, wherein a camera or deck equipped with a FireWire interface (such as the Canon Elura or the JVC GR-DV1) connects directly to a Mac's FireWire port. VideoShop allows you to import standard video, S-video, and FireWire video, while EditDV Unplugged only allows you to import from FireWire. Once connected, the camera can send and record video, but it can also be controlled from the computer. If you use either program without a FireWire-based system, you'll get error messages if you try to use FireWire-specific functions.

#### Cut!

VideoShop is a versatile product that lets you not only do basic video editing but also more advanced tasks such as compositing — the process of playing several video tracks at once, using layers and transparencies, or even the fabulous “blue screen” trick that superimposes actors or objects on a different background. It does require you read the manual, but compared to EditDV Unplugged, it's a breeze. As the “lite” version of Digital Origin's pro-level EditDV (which lists for a whopping \$899), EditDV

Unplugged seems to have inherited more than its share of complexities from its parent.

But to be fair, no video-editing program we've seen is completely simple. The controls aren't completely intuitive on either program, and you'll

often find there are two ways to accomplish the same task, so you'd best get used to reading manuals.

VideoShop gives you two basic methods of working with video files — a storyboard view and a timeline view. A timeline, as the name implies, is a way of stacking the various components of a movie along a line representing time, so you'll see your video clips, audio, and titling tracks along with indicators showing where transitions and special effects occur. Both views show you what



**VideoShop** lets you easily accomplish sophisticated special effects, just like the pros.



happens as the movie progresses, but the storyboard view is simpler — you'll just see the tracks and some plain-text indications of what's happening at various points during your movie. When you're in timeline view, for example, and you have a "checkerboard" transition from one video clip to another, you'll see a bar above the location of the transition but not what kind of transition it is. When in storyboard view, however, you'll simply see the word "checkerboard" at that location.

EditDV Unplugged calls its main window a "Sequencer," and that makes sense, as it uses timeline construction. In both programs, you drag video and audio clips from a "bin" and drop them into a project window, laying out the media on a timeline going from left to right. You vary the length of the clips by adjusting in-and-out points and adding transitions, special effects, and titling. It may be a bit rocky at first, but it's pretty easy to pick up.

In the "bin," where you store unused video files, VideoShop lets you display clips as "Micons" — small icons in which the first 60 frames of the movie play repeatedly. EditDV Unplugged displays clips as tiny filmstrip icons. It's a small difference, but it's nice to see what the clips look like in motion.

VideoShop has an extensive library of effects (filters) such as rain, sharpen image, pixellate, and emboss that you can apply to video. Likewise, it has quite a few transitions, such as barn doors, wipes, mosaic, and checkerboard, for switching between video clips with panache. These are all pretty easy to use, although some contain esoteric controls. Thankfully, you can preview them to see what you'll get. You can preview the effects in EditDV Unplugged as well, though there are not as many, and the preview takes place in a separate window. So if you're not careful, it's easy to fill your screen with windows.

EditDV Unplugged does have a nice, burnished-aluminum feel about its interface, but it suffers from confusing icons and some dialog boxes that don't feel very Mac-like. I was able to figure out what a lot of VideoShop's controls did without heavy reading, but EditDV

Unplugged left me scratching my head more than once. This package has a lot of promise, but it's more something that a video professional will cotton to rather than the home user.

VideoShop has two other cool features that EditDV doesn't: compositing ability and the TuneBuilder application. Compositing, or viewing several clips at once, is very nice. With this, you can do the ever-popular "picture-in-picture" effect, or maybe split the screen into four little screens, as was popular in the 70s. Another amusement is to add motion to a clip, as in making a video float around the screen while it plays, maybe atop another clip. The TuneBuilder function is a trifle contrived, but it's useful nonetheless: Using a predefined library of music, you can create soundtracks that match the length of your movie. It's a fairly well-implemented feature, but I found myself wanting to add other music to the available repertoire.

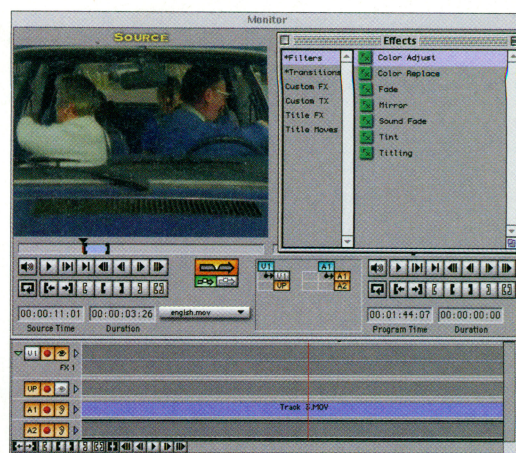
EditDV doesn't do compositing at all — you can only have one video track playing at a time, though you can do simple dissolves and other transitions that briefly play both video clips. If you want compositing and other full-on functions, you gotta get the more expensive EditDV package.

### Titling

VideoShop's titling features (for creating words on the screen) are utilitarian and only a little confusing. You won't get a whole lot of variety with these titles, but creating titles is not that hard to do. EditDV, however, considers titles to be a filter that you must apply over a clip — a rather nonintuitive approach that I found difficult to implement.

### Putting It Together


Both programs let you save your work as QuickTime movies, though it isn't readily apparent — both save movies as files for their respective application types, but the files will play with the standard QuickTime player. If you want to "Print to Video," which means recording to a videotape, you can only




**EditDV Unplugged** is the smaller, less expensive version of EditDV, a package aimed more towards professionals.


use FireWire devices with EditDV Unplugged. With VideoShop, you can use any hardware combination that sends video out, whether FireWire or standard video.


**The Final Decision** We want to like EditDV, as it is a versatile program. However, compared side by side to VideoShop, it doesn't offer nearly as many features and is quite a bit more confusing. Unless you're a real techie, we recommend going with VideoShop. If you get this package for \$99 with XLR8's Interview, it's the best deal in town. Even at its estimated street price of \$200, though, it's still a great deal. **VIII**

**rating** 


**VideoShop**  
\$200 (but available for \$99 with XLR8's Interview),  
Strata, Inc.  
435-628-5218  
www.strata.com


 Easy to understand, lots of good effects and transitions, does compositing, works with standard video hardware and FireWire.

 Some confusing operations

**rating** 

**EditDV Unplugged**  
\$99, Digital Origin (formerly Radius)  
650-404-6000  
www.digitalorigin.com

 Sleek-looking interface, does some smooth moves

 No compositing, confusing controls, only works with FireWire outboard video equipment



## RDC-5000 Digital Camera

Digital cameras are not especially known for their ease of use, but Ricoh's RDC-5000 is a step in the right direction. Normally, you have to "download" your images from your camera to your Mac by means of a serial cable and special utilities. Or you remove the SmartMedia card from the camera and take the images from it by means of a SmartMedia disk drive, which is an added expense. But if you have USB, you can plug the camera directly into your Mac and it appears on the Desktop, and you can just drag the pictures off of it. Now how cool is that? And even if you don't have USB, you can still use a serial cable, allowing you to take advantage of many of the camera's other features.

The RDC-5000 offers an astounding



maximum resolution of 1,800 x 1,200 pixels, which is roughly twice the industry standard. This means you can blow your pictures up to grand proportions.

Also, it's probably the first digital camera to have on-board memory — 8MB to be exact — that can accommodate about eight high-resolution photos or about 70 lower resolution ones. So

although you can also add a SmartMedia card (none is included), you don't have to. It's also probably the first digital camera to have a cover for the LCD (the display that acts as a viewfinder); it opens when you turn on the camera.

The only downside to the camera is that if you don't use USB, your going to have to use Ricoh's usual downloading utility which, even by digital camera standards, is quite rough. For one thing, the utility doesn't show you previews of

your images, and you have to download them all in order to see what you've got.

**The Final Decision** If you have USB, this camera will give you cause to celebrate. Its ability to just appear on your desktop is a breakthrough in digital camera simplicity. If you have a Mac with a serial port, you'll still be impressed, but you'll have to face some of the typical drawbacks of digital cameras — high price coupled with a primitive downloading process.

— David Weiss

### rating



\$699, Ricoh  
702-352-1600  
www.ricoh.com

Mounts directly to desktop if you have USB, blazing resolution, nice zoom, comes with on-board memory as well as SmartMedia option, LCD cover, and adjustment, comes with case and AC adapter

Had to download the USB drivers, rough documentation, obscure drivers if you're not using USB, a bit pricey

## UpdateAgent 3.0

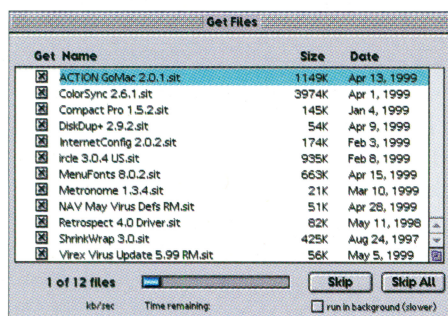
The good news is that 3,100 new Mac applications were announced in the year since the iMac was unleashed. The bad news is that there are 3,100 more potential bug-fix updates and upgrades you have to look out for.

But you don't have to drive yourself crazy surfing the Web; UpdateAgent will save you.

UpdateAgent checks the software on your Mac's hard drive. In a couple of minutes, the program produces a list of available updates. Then you decide whether or not to retrieve them. The CD version accesses the files directly from the publisher's CDs (you can subscribe to quarterly updates), or you can use the online version, which delivers the updates directly from Insider Software's own Website. The online edi-

tion is the least expensive and most timely solution.

Version 3.0 adds background downloading (so you can do something else while the files are being retrieved) and a simpler, better-organized interface. There are now direct links to a software developer's own Website, so you



can learn more about an update before you decide whether you need it or not.

It's amazing that the program works as well as it does. I pride myself on checking almost daily for new software updates and even I missed a few that UpdateAgent discovered.

There's not a lot to criticize. If you're using the online version to retrieve a file and you get disconnected (a common occurrence on AOL, for example), you have to consult the program's session log

to find out what was missed so you can get it again. UpdateAgent cannot just resume the download where it left off. And, on two occasions, the program listed an update I had already installed.

**The Final Decision** Minor shortcomings aside, UpdateAgent is just short of a miracle. No longer do you have to fret and worry over missing an update that will fix the problems you're having with a specific program. Let UpdateAgent do its stuff, and you can worry over other things instead, such as getting some work done.

— Gene Steinberg

### rating



\$13 (Limited Edition Download), \$50 (Standard Edition Download), \$60 (Standard Edition CD), \$90 (One Quarter CD Edition), \$200 (Annual CD Edition), Insider Software.  
800-700-6340  
www.insidersoftware.com

Automatically locates software updates on CDs or online; easy interface; fast performance

Can't pick up in the middle of an interrupted download, occasionally suggests unnecessary updates



## Photo/Graphic Edges 4.0

The problem with some digitally produced photographs is that, try as you may to enhance them, they too closely resemble their originals — dull and boring.

Photo/Graphic Edges 4.0 by Auto F/X lets you create exciting, evocative edges and borders to frame any photograph, giving you an instant remedy for those humdrum shots.

Photo/Graphic Edges can be used as either a Photoshop plug-in or an independent application. As a plug-in, the program can be used with any graphics software that conforms to the Photoshop 3.0 plug-in standard. If it doesn't, or if you're not sure, you can always use the program on its own.



Using Photo/Graphic Edges is completely intuitive. After launching the program (or plug-in), you are able to choose an edge via an interactive screen in which your picture is arranged on one side and the controls are on the other side. Just add or remove effects at will. You can layer as many effects on one picture as you want. A handy Revert button and Effects log lets you remove effects you don't like and keep track of exactly which effects

you've used before and in what sequence. With each edge, you can apply a variety of lighting, shadow, distortion, sepia, bevel, curve, and other effects to make each photo unique. There are one or two functions that are a bit clumsy to use, but these did not detract from the program's overall ease of use.

You can choose one (or all) of the four

CDs available (for \$99 each), as each contains different styles of edges, such as traditional, geometric, artistic, and dark-room effects. I recommend that you work on a 17" monitor, as the interface was actually designed for that screen size. However, if you have a smaller monitor, it will not affect the performance at all.

**The Final Decision** Photo/Graphic Edges can lend a helping hand to your less-than-stellar images. And even if your photo is a winner, it can inject just the right artistic note into your masterpiece.

— Jackie Dove

<b>rating</b> ★★★★★
\$149, Auto F/X 603-875-4400 <a href="http://www.autofx.com">www.autofx.com</a> Power PC Required
☑ Fun, intuitive, easy help guide, exciting effects, multiple undos
☹ General module controls somewhat clumsy

## Pen Partner

If there's one word that best describes the Pen Partner, that word is "cool." The first thing you'll notice about the tablet is the iMac color scheme. This is always a plus, and the translucency is great; you can see everything inside the tablet in exquisite detail, adding ten points to the coolness factor. The transparent plastic covering the tablet's surface is a tracing overlay, which allows you to put a picture on the tablet so you can easily trace it. Unfortunately, the small size of the Pen Partner severely hinders the size limits of what you can trace. It's really only good for tracing pictures around the size of a postcard.

It can sense 256 levels of pressure, so heavily drawn strokes will come out heavy on your screen, but the more full-



featured tablets can sense as many as 1,024 levels. But still, 256 levels are enough for basic drawing.

As with the other recent Wacom tablets, Pen Partner includes Painter Classic, a stripped-down version of Metacreation's professional-strength Painter, which is an unbelievably cool program for any budding artist. It works so well with the tablet's pressure sensitivity that it's almost pointless to use the program without it. You can use chalk, pens, markers, airbrushes, smudges, and tons of brush effects to augment your drawings. And with the pen's integrated eraser, you can quickly rub out portions of your artwork with a flip of the pen.

One gripe about the pen is its lack of a second finger button. It appears that Wacom dropped the second button in order to cut the cost of the Pen Partner,

a decision that severely hampers the pen's effectiveness. While you can still configure the finger button to do double clicks, click and holds, and other mouse functions, it's almost worthless without a second button to use for single clicks. Another problem is the hard tip of the pen, which makes judging pressure difficult.

**The Final Decision** While it's nowhere near industrial strength, both in terms of size and functions, the Pen Partner is great for the iMac, which has a 15" screen. But if you have a blue G3 and a 17" inch screen or larger, you'll want to spring for Wacom's larger and more full-featured Intuous tablet.

— Alex Handy

<b>rating</b> ★★★★★
\$99, Wacom 800-922-9348 <a href="http://www.wacom.com">www.wacom.com</a> USB Required
☑ Great price, iMac color scheme, great software
☹ Only one control button, hard-tipped pen, not many levels of pressure



## AudioCatalyst 2.0

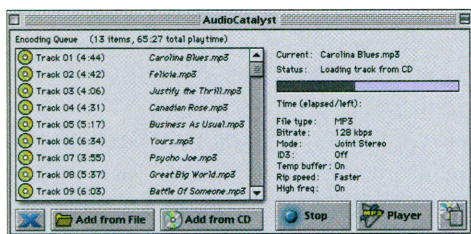
It seems like everyone's had something to say about MP3, the latest darling of Internet standards. Short for MPEG

Layer 3, MP3

is a standard for compressed audio storage and playback. It's gained a lot of attention for its potential applications,

such as delivering recorded music over the Internet. And one way of celebrating the release of RioPort's Rio 500, the Mac's first MP3 player, is to create your own MP3s. That's where Xing Technology's AudioCatalyst comes in.

Producing MP3s with AudioCatalyst is a snap: Select audio CD tracks and AIFF standard sound files as desired, and then hit the "encode" button to begin the conversion process. After setting the destination folder for finished files,



AudioCatalyst is largely set-and-forget, loading audio data and compressing that data according to the MP3 standard. Audio CD track conversion (or "ripping" in techie-jargon) is generally brisk,

although a slow CD-ROM drive would act as a bottleneck in

AudioCatalyst's performance. Most of the options available in

AudioCatalyst are accessible through

the preferences controls. From there you can make all the necessary adjustments, from selecting different CD-ROMs for source tracks to picking among several encoding options. The normalization controls are particularly useful, as they allow you to maintain the same volume level across different CD tracks and AIFF files. AudioCatalyst also sports CDDb (Compact Disk Database) functionality, allowing you to tap into a server on the Internet and associate the cor-

rect song titles with your freshly generated MP3 files. AudioCatalyst can also generate MP3 files on the fly with your Mac's microphone as the source, either with the standard sound-recording interface that you'll find in most Mac applications or by using a simpler, open-ended recording function.


**The Final Decision** AudioCatalyst is an excellent program. While I'm still waiting to try out a Rio 500, at least I know that when it comes to turning music into MP3 files, AudioCatalyst is the one.

— Frank Araullo

### rating

\$30, Xing Technology  
805-783-0400  
www.xingtech.com  
PowerPC required

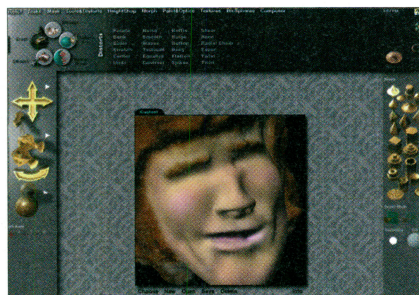
 Easy to use, you can record sound directly from a microphone

 Conversion process can be a bit slow, especially with older CD-ROM drives, cannot convert non-AIFF sound files

## Amorphium

Input devices are so cumbersome.

Rather than using a mouse, a trackball, or a keyboard to manipulate pictures, wouldn't it be great to be able to just reach into your monitor and shape your image as if it were so much putty in your fingers? Well until we can do that, Play Inc. would like to help us out means of a new 3D-sculpting tool called Amorphium.



Like Metacreations' Bryce, Amorphium is designed to make working with 3D as easy as playing with Legos. And in fact, Amorphium's interface incorporates many of Bryce's tools and features, as well as its overall look. It gives you a small working window in the center, with tools along the right side and navigational controls along the left,

including a 3D Rotation tool that's identical to Bryce's Motion Trackball, as well as zooming, tilting, and simple moving tools. But unlike Bryce, you can't shift your objects using the arrow keys, so it's hard to fine-tune the position of your objects.

Amorphium starts you out with a blue ball, and using one of the many tools at your disposal, you can poke it, bend it, and mold it, and then turn it around to view it from any angle. The program's

strength lies in its ability to work with curves, which is comparatively difficult in Bryce. And if you want, you can easily export your Amorphium creation into a file that can be imported into Bryce.

But after you dig in a bit deeper you'll find that Amorphium is quite buggy and rough. Many of its functions are in different areas of the program, and sometimes when I moved from area to area,

such as from the "Tools & Distorts" area to the "Paint & Optics" area, the window would revert to the original blue ball. And sometimes the Zoom tool would just not work. Rather than having a File menu, as most programs do, Amorphium has a "Project" menu, which is nonstandard and confusing, and it uses an odd, nonstandard font that makes the program look too much like what it really is — a first effort.

**The Final Decision** Amorphium has a lot of promise but some very frustrating limitations. It would work very nicely as an adjunct to Bryce, but as a standalone product, it's a bit too far on the awkward side.

— David Weiss

### rating

\$150, Play Inc.  
888-888-7529  
www.play.com  
PowerPC Required

 Lets you do 3D sculpting, easy to play with

 Rough, inconsistent interface, a bit buggy



# Making Flippy Floppies

## Teac's Floppy Drive Vs. The uDrive By David Weiss

**F**loppy disks have been around since the early days of computing, and they are now beginning to go the way of the 8-track tape, since they can only hold 1.4MB of data. But many people still like to use them for storing a file or two (they can hold about 60 or so pages of text).

Many people fall back on using them when all else fails (for example, when you need to move a System extension from one Mac to another but the network is down).

And many of us, though we've recently upgraded to an iMac, blue-and-white G3, or new PowerBook, still have a whole shoebox full of floppies. We took two \$99 USB floppy drives for a spin: the uDrive from Newer Technology and the USB Floppy drive from Teac.

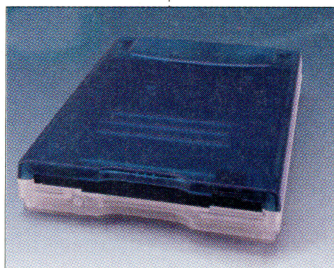
### The Floppy Factor

Both drives share a number of limitations. When you eject a disk, it doesn't just pop out as you would expect. Instead, a message comes up telling you that it's okay to manually eject the disk from the drive, which is a slightly annoying extra step. This was also true of the VST floppy drive, which we reviewed in June. Neither the Newer nor Teac drive is capable of reading the very old 800k floppies, so if you need to get the data off of these, then you'll have to drag them down to a computer service center such as Kinko's. And because of the nature of

floppy mechanics, all of these drives are going to transfer your files quite slowly compared with other drives, such as Zip or even SuperDisk.

### Basics

The uDrive has a unique shape. When you hold it upright, it resembles the dorsal fin of a shark. To jibe with the hip new Macs, it's encased in translucent blue-and-white plastic. It has an option to add AC power, if so desired. The Teac drive is similarly adorned, but it's quite a bit smaller and thinner, and its rectilinear form makes it about the same size and shape as a paperback book.



### Speeds

In terms copying your beloved data, neither drive is as fast as a

SuperDisk drive. In tests using the latest drivers from each manufacturer and OS 8.6 on a blue-and-white G3, the average data transfer speed of a SuperDisk drive was about 1.4MB per minute. But the SuperDisk was much faster copying from the floppy to the hard disk than it was the other way around. Its average speed from the hard

disk to the floppy was 670KB per minute, whereas from the floppy to the hard disk, the average speed was 2.2MB per minute.

Compared to each other, however, the Teac came in a tad faster. The uDrive's average data-transfer speed was 849KB per minute, whereas the Teac was able to transfer 1,081KB per minute. The Teac copied about as fast in both directions, whereas the uDrive was much slower copying from the hard disk to the floppy.

**The Final Decision** For \$99, these are both fine drives. But if you have many floppies to copy, you might want to spring for a SuperDisk drive. It's about \$50 more expensive, but it will give you an enormous speed boost copying files from the floppy to your hard disk — about twice as fast. Also, with a SuperDisk, you'll also be able to read 120MB SuperDisks. Compared to one another, however, the Teac is the better bet. It's both slimmer and a bit faster. **WIN**

### rating

#### Teac Floppy Drive

\$99, Teac America  
323-726-0303  
www.teac.com  
USB Required



Compact, a bit faster than the uDrive



Slower than a SuperDisk drive

### rating

#### uDrive

\$99, Newer Technology  
316-943-0555  
www.newertech.com  
USB Required



Cool Design



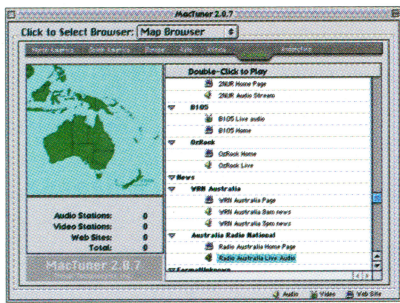
A bit slower than the Teac drive



# MacTuner 2.0.7

In the old days, they called it “dx-ing”—a cool hobby in which you sought out radio stations from other cities, especially late at night. Crowded radio bands and urban sprawl have made the hobby much more difficult, but MacTuner hopes to bring back the thrill of discovery, using the Internet as its source—it’s a database front-end program that works with Real

Network’s RealAudio to help you locate and receive the stations you want. You can use MacTuner’s map interface to click on a country or city, which brings up a list of available radio and video broadcasts, listed by format. Or use the search screen to find stations



that fit your needs. Either way, once a station is located, you just double-click on the station’s name, and MacTuner will take you to the appropriate Website and begin streaming the signal your way through RealAudio.

Don’t expect miracles, though. Quality can be a mixed bag, and it requires a really good, fast modem connection to deliver the best sound. Even then, the audio quality ranges from decent FM radio to something that’s just barely audible. In addition, Internet congestion or just plain problems at the source site can put you out of luck. And naturally, if you’re busy doing some intensive work on your Mac, radio reception takes a back seat. The audio will sputter or drop out entirely. On the other hand, trying to

find distant stations on a regular radio can be equally as uncertain, as you have to play with antennas (or just turn the radio around) and depend on the proper conditions to get usable signals.

**The Final Decision** Yes, there’s still plenty of life left in Marconi’s invention, except this time your player is a Mac. If you can get by its limitations, you’ll find a lot to enjoy with MacTuner. And best of all, it’s shareware, so you can download a trial copy for free.

— Gene Steinberg

**rating**

**\$23, Trexar Technologies**  
**www.mactuner.com**  
**PowerPC Required**

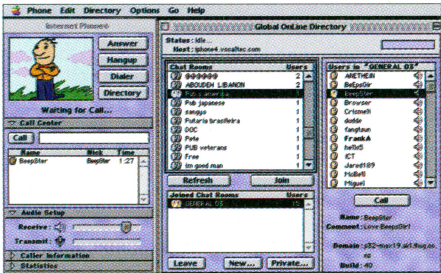
**Easy-to-use interface, quick access to your favorite stations, cheap**

**Bogs down when the Internet or your Mac is busy, requires RealAudio, QuickTime 4.0 streaming format not supported**

# Internet Phone

Computers are moving into more and more areas of everyday life, and one of the more recent examples of this is Internet telephony. By using the Internet to carry voice communications, Internet telephony bypasses the telephone networks of traditional long-distance phone companies and promises to pass big savings on to their customers. Internet Phone by VocalTec is one program that can help Mac users take advantage of this new technology.

When you launch the program, a welcome screen explains the options for voice communications, and then the program logs you onto a chat server for live one-on-one chat sessions. This small bonus is free of charge, as are many Internet chat clients, but, as with too many other forums on the Internet, many of the topics tend to be a



bit on the crass side. Unfortunately, in order to make telephone calls through Internet Phone, which is the main purpose of this program, it’s necessary to set up an account with an Internet telephone service provider that handles the link between your Internet telephone and the traditional telephone networks. But this is a limitation of the technology, not the program. A button on Internet Phone’s default window jumps directly to VocalTec’s Web page listing available service providers. Some providers offer flat rates for telephone calls (usually \$10-\$20 per month for calls within the US), while others offer a schedule of per-minute charges for various types of long-distance calls (typically 10 cents per minute for domestic calls and 15 to 75 cents per minute for international calls), so it’s good to shop around for the best service. But while it’s relatively simple to use,

Internet Phone does have a few limitations. You can’t dial anything after the initial phone number, so accessing voice mail and similar services is out of the question. And to get your phone account set up, you’ve got to submit a form and wait for a response. Also, I found the quality of the phone calls to be somewhat poor, reminiscent of early cell phone service.

**The Final Decision** While the Internet Phone application is okay overall, it’s hard to recommend it because its options are a bit limited. Also, the quality of Internet telephony in general is a bit rough, and with the added charges, it doesn’t fulfill the promise of allowing you to make “free” long-distance calls.

— Frank Araullo

**rating**

**\$50, VocalTec Communications**  
**201-228-7000**  
**www.vocaltec.com**  
**PowerPC required**

**Lets you make long-distance calls over the Internet, has real-time chat capability**

**Awkward account set-up, limited functions**



# Slick & Slim

## A Look at the New PowerBook By David Weiss

**T**he G3 PowerBooks are wonderous portables — they're sleek, curvy, and it's easy to pop in a floppy drive or battery as you need them. And the new ones have picked up on that tradition and improved upon it — they're lighter and slimmer than the "previous" PowerBooks, as they're called on Apple's Website.

And the batteries last twice as long in the new PowerBooks — five hours, approximately, which is long enough to cover a domestic flight, as long as it's a direct flight.

### The New 'Book

The weight loss is certainly noticeable: If you tend to carry these around on your shoulder, your body will thank you. The only downside to this new design is that because the lid is slimmer, just pressing on the back lightly causes the screen to ripple, which might not be such a bad thing, but it makes me think that it's not quite as sturdy as the earlier models.

The new design also makes it very easy to just pop out the keyboard, making it much easier to install RAM. But because of this, the keyboard has a slightly rickety feel. The new PowerBook has twice the video RAM (8MB), which gives you higher resolutions if you add a second monitor. It also has 10/100-BaseT Ethernet, which, if you connect to another 100-BaseT Mac, such as the iMac or blue-and-white G3, your files are going to fly much (in theory, ten times) faster than with 10-BaseT Ethernet.

Apple added some nice touches. Now all the cords run out the back. Before, the modem cord ran out the side, where it was visible and also interfered slightly with the card slot. Before, the power, brightness, and volume controls looked

alike and sat together. Now the power button sits alone, which is safer, and the other controls are on the keyboard. The latch of the lid is more substantial, and the clicker button is a bit easier to click. Also, the keys are translucent and the Apple logo on the lid glows when the PowerBook is on. Just about the only thing they didn't include is FireWire. True, you can get a Newer FireWire card for \$249 which you can just pop in when needed, but I would have wanted it to be hardwired, the better to just slam in a VST FireWire drive, back up my data, and be on my way.

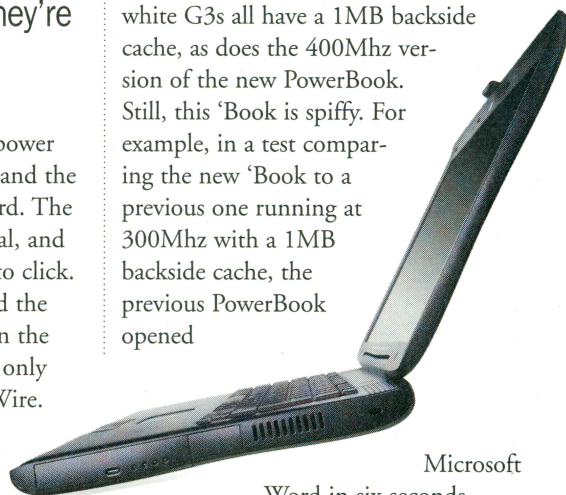
### The Screen Remains the Same

The screen is the same as the previous PowerBooks, and they're pretty nice, but I think they could stand to be improved. They still have a rather limited angle at which the screen is perfectly sharp and clear, and they're still a tad washed out. Now, I know I'm being picky, and the new PowerBooks are much less expensive than earlier models. If Apple were to douse the PowerBook screen with just one tiny dab of the magic they heap on those flat-panel Studio Displays, the PowerBooks would truly shine on a much more profound level.

### Performance

This 'Book's processor sits at 333 Mhz,

and it rides on a 512K backside cache. It's the backside cache that gives G3s the edge over Pentiums that run at the same processor speed, since the cache is right near the processor, and hence the term "backside" cache. But this is a "consumer-sized" backside cache. Blue-and-white G3s all have a 1MB backside cache, as does the 400Mhz version of the new PowerBook. Still, this 'Book is spiffy. For example, in a test comparing the new 'Book to a previous one running at 300Mhz with a 1MB backside cache, the previous PowerBook opened



Microsoft


Word in six seconds, whereas the new one opened it in two.

**The Final Decision** The new PowerBook is certainly an improvement over the previous model, which was already an outstanding portable. No, you won't get FireWire. But you'll get a faster processor, a slimmer, lighter design, increased battery life, faster Ethernet, and better video support. And you'll also appreciate the hearty assortment of small improvements. **III**

### rating

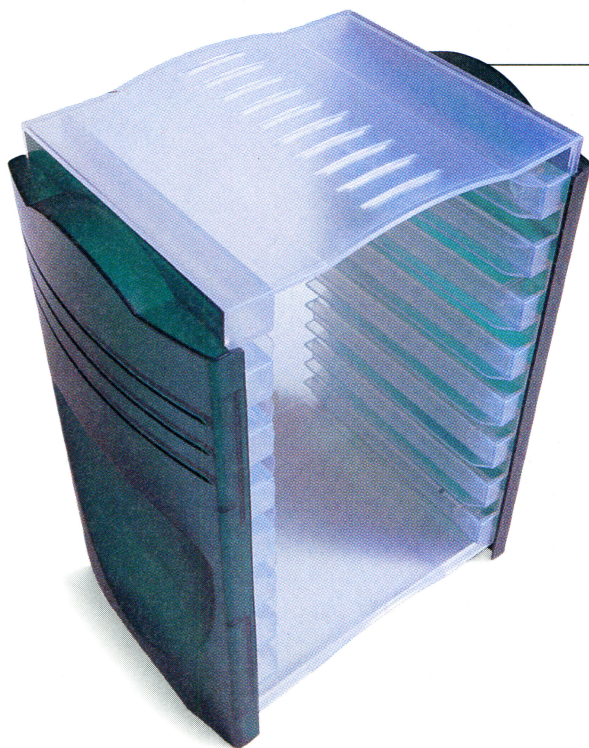
#### PowerBook G3/333

\$2,500, Apple Computer  
800-538-9696  
[www.apple.com](http://www.apple.com)

 Faster processor, slimmer, lighter, longer battery life, better video, faster Ethernet, nice touches

 No FireWire, possibly fragile lid, screen could stand some improvement, doesn't come with floppy drive





### ALLSOP StaggerStack.

Unit holds 16 CDs with extra storage on top. Staggered design provides easy CD identification and removal. 60299



### EPSON Stylus 7401 Color Printer.

1440 x 720 DPI of photo quality color. Compatible with Windows '98, '95 31x, NT, Macintosh, USB. 4-color Micro Piezo Inkjet. Adobe PhotoDeluxe, Broderbund, etc. 6PPM black, 5PPM color. 1-year overnight exchange warranty, 86439

### IMATION USB SuperDisk Drive.

120MB capacity. USB interface. Uses 1.44 3 1/2" floppies and 120MB SuperDisk. iMac compatible. 49319



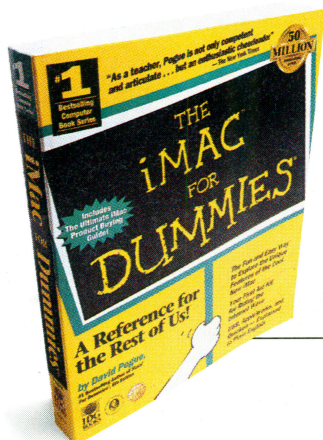
### NEWER USB uDrive.

1.44MB floppy drive. USB interface, iMac compatible. Styled to match iMac. Stackable with other Newer uLine peripherals. 49709



### AGFA SnapScan USB Color Scanner.

600 x 1200 PPI optical, 36 bit. 9600 x 9600 DPI interpolated. 8 1/2" x 11 7/8" scanning. USB interface, iMac and Windows '98 compatible. Agfa Scanwise, Corel Print House Magic. Caere's Omnipage LE 5.0 for OCR. 46149



### iMac for Dummies.

A reference for the rest of us. 63018



# Your girlfriend's not the only one who can accessorize at Sears.



**ALLSOP CD Transit.**

Stores a combination of 10 CDs, DVDs or CD-ROMs. 60114



**NEWER USB uHub.**

7 ports. Cross-platform capability. Styled to match iMac.  
Stackable with other Newer uLine peripherals.  
8 indicator lights, AC adapter. 49719



**IOMEGA USB Zip Drive.**

100MB capacity. USB interface. Windows and iMac compatible. 49229

**Find the iMac® and accessories at your nearby Sears now.  
Why go anywhere else?**

# SEARS

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Prices may vary in Alaska, Hawaii and Puerto Rico.



## Picture Perfect

### Put Your Family Photo Album on the Web

**O**K, so you're totally immersed in all this Web stuff, and you've decided that you want a Website, too. What better way to begin than to put your family photo album online, for your far-flung relatives to see? Sound daunting? It's easier than you might think, what with so much easy-to-use hardware and software specifically designed for the task.

The following workshop outlines just one easy way out of many to put your family photo album on the Web. Steps may vary according to the Mac model and version of your operating system.

#### Gather Materials

There's nothing like being organized if you want to create a good Website — and it will save you a lot of headaches later on. The first thing to do is gather all your materials, which fall into three major categories: hardware, software, and photographs.

While we have selected specific hardware and software as examples for this workshop, based on their ease of use and affordability (some even come bundled with the iMac), many other products work equally well.

It doesn't matter which flavor of Mac you use, since they will all let you process images, use a simple Web authoring tool, and go on the Internet. We're assuming you already have an account with an Internet Service Provider (ISP), for Internet access. Many ISPs also give you a small amount of space on their server (anywhere from 5MB to 20MB) as part of your account, so be sure to inquire as to how much they give you. That is the

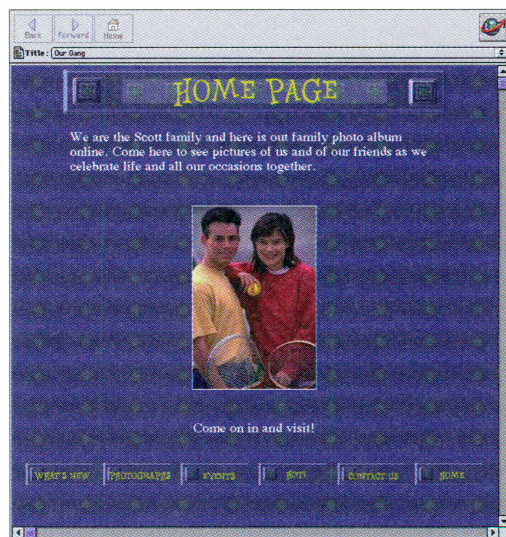
"space" (cyberspace, really) where you will post your family album.

For this article, we selected a Umax Astra 1220S Scanner (about \$149) to scan in or digitize snapshots from the photo album. The Astra 1220S has a SCSI interface (the cable connection to your hard drive), but if you have an iMac or a new G3, Umax also makes the 2000U model with a USB connection for \$129. When you scan in a photo, the picture is converted into a digital file that appears as an icon on your computer screen. (See *Scanner Spectacular*, July 1999, for a scanner comparison.)

For taking digital photos, we selected the Toshiba PDR-M1 Digital Still Camera for \$400. Both scanners and digital cameras store your pictures as digital files called JPEGs (short for Joint Photographic Experts Group, a digital file format). New digital cameras are flooding the market daily, so be sure to base your decision about a digital camera on a combination of quality, options, and price. (See *Digital Light and Magic*, April 1999, for a roundup on digital cameras.)

Once you have an electronic image on your hard drive, you'll need to edit that image — crop it, adjust the color, enlarge or shrink it. Digital cameras, scanners, and even some Web-authoring software come bundled with image-editing software. But you can also use a commercial imaging program for more flexibility and options.

Once you have all of your images assembled, you then construct the pages that will go on the Web. For that, you'll need a Web-authoring program. We suggest a simple WYSIWYG (for What You



See *Is What You Get*, pronounced "whizzywig") program that lets you design your page right on the screen.

Adobe PageMill 3.0 (bundled with iMacs or available for \$99), the program we chose for this workshop, lets you combine elements such as text, images, sound, and animations into your



Website. There is a large variety of Web-authoring programs on the market that cater to every need and design level, and we suggest that you download demos of such software before investing in a software package. (See *Tips to Make Your Website Dynamite*, July 1999.)

A critical difference between Web authoring and publishing for print is that as you visually place objects on your page, the Web-authoring program generates a computer language called HTML (Hypertext Mark-Up Language), the language that is actually read and displayed by Web browsers such as Netscape and Internet Explorer. HTML is the backbone of the Web, and the great thing about visual-authoring packages such as PageMill is that you do not need to actually know HTML in order to build a Website.

## Scanning In

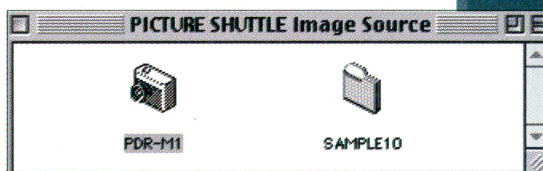
Like many folks, you probably have photo albums full of photographs — relics from the predigital era. You'll need a scanner to convert such print images into digital images that can be stored as JPEGs and edited by graphics software such as Photoshop (a JPEG is a compressed-image file format for the Internet most often used with photos).

Setting up the Astra 1220S scanner is a breeze. Shut down the Mac in preparation for attaching the scanner to your SCSI port, located on the back of your hard drive. If you have an iMac or a new G3, your life will be that much easier, as their USB ports are "hot plug-gable," meaning that you do not have to shut down your system in order to attach and detach scanners and other peripherals. Make sure to unlock the scanner head before first using it or it will emit a ghastly noise. (The scanner head comes locked to prevent damage to the scanner.)

Once you attach the scanner to your hard drive and power the computer back

up, the next step is to install the software drivers — the software that facilitates communication between the Mac and your scanner. Just slap the CD into the drive, follow the directions, and click Install. For first-time users, we suggest that you do an "easy install," which deposits all the software on your hard drive. After installation is complete, a folder will appear on your hard drive called Umax Vista Scan. If you're using a different scanner, it usually includes a similar program for controlling it from the Mac.

Scanning is much like using a copy machine: place a document on a piece of glass and hit a button (with Vista Scan, launch the program and choose "acquire" under the File menu). The device senses the light and dark areas on



your picture, digitizes the values, and records them in electronic form as a bitmapped graphic (a picture made up of dots, or pixels). You can scan black-and-white images or color images, as well as graphic line art.

## Using Photoshop or PhotoDeluxe

To scan using Photoshop or Photoshop LE (The "limited" LE version, normally priced at \$99, is bundled with the CD version of PageMill; it's also bundled with some scanners, such as the

"Advanced" menus. We recommend using the "Advanced" version of the program, particularly if you are scanning in photographs of people, because the "Beginner" menu tends to distort skin tones. If you are scanning graphic art or line art, the "Beginner" menu works much better.

Setting up your scan under the "Advanced" menu is easy, and it gives you more flexibility. Select Flatbed Reflective, Color RGB (for Red, Green, Blue), 72 dpi (dots per inch) for Website

## Transfer Tip

**When transferring images from your digital camera to your non-USB Power Mac**, shut off all equipment first, connect your camera to your Mac via its transfer cable, then turn the Mac and camera back on.

photos, No Descreen, and No Filter directly from the

pull-down menus. The cropping tools let you crop your photo before you scan.

In Adobe's PhotoDeluxe, bundled with many scanners, Just click the "Get Photo" button and follow the directions.

Large photographs with hefty file sizes travel slowly through the Internet and take a long time to appear in a browser window. You will likely want to place several photos on one Web page, so keep your images closely cropped and as small as possible. After all, it's not polite to keep people waiting.

You can scan at 100%, but consider reducing the size, so that your page will load quickly. If you want to shrink a print, scan at between 33 and 75%.

Always scan images at approximately the size that you want to use, rather than resizing them later. Then save your scan as a JPEG.

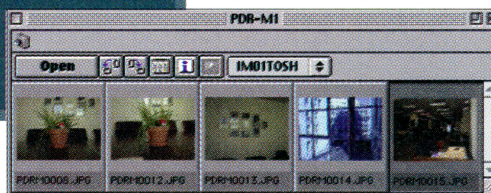
When you save, you will be given some choices as to quality. We suggest saving at the lowest quality, because that means the smallest file size and the fastest download.

## Point n' Shoot

If you have the option of a brand-new

## Get Images

**When using serial ports**, such as the printer and modem ports, be careful that two applications are not competing for them. Thus, if you download images from your digital camera using Picture Shuttle, you will have to quit that program in order to find the camera in Photoshop.



Canon CJ10), select Import, under the File menu and then choose Vista Scan 3.5. You will find "Beginner" and



## Scan Safely

**Install your image-editing program before installing the scanner drivers.** That way you can let the software automatically place the drivers in the correct folder (called the plug-ins folder).

photo shoot for your family album, consider taking photographs with a digital camera. We used the Toshiba PDR-M1 Digital Still Camera. When you take the camera out of the box, you first must load four AA alkaline batteries. Digital cameras do not use film; rather they record images on so-called SmartMedia cards — tiny memory cards. SmartMedia cards may also have to be initialized or formatted so that they can hold your pictures.

Like film cameras, digital cameras have both automatic and manual features. To take pictures, simply turn on the camera, view your image through the viewfinder, and press the shutter. Many digital cameras have an LCD monitor on the front, which also acts as a viewfinder. Thus, you can focus with the LCD screen both to compose your shot and then to view your pictures after you shoot.

The SmartMedia card can hold a variable number of pictures within its memory, depending on the quality of your photos. You can set that quality, called resolution and measured in pixels. After your shoot, you'll have to transfer the photos from the camera to your Mac and then clear the SmartMedia card so it can hold additional pictures. That can be done via the controls on the camera or from your Mac.

When it's time to retrieve your pictures

from the camera, you'll need a combination of software and a small cable (that comes in the box) to link your camera to your Mac. The software — in this case, the DS Serial TWAIN Driver, Picture Shuttle, and EZtouch — comes on the Toshiba's CD-ROM. We recommend

installing the whole schmeer.

You can also download images from within a photo-editing package such as PhotoDeluxe.

A word about TWAIN is appropriate here: TWAIN (the acronym for,

oddly enough Technology Without An Interesting Name) is a global standard interface connecting such image-editing software applications as Adobe Photoshop LE (which we are using in this story), your camera and your scanner. Picture Shuttle is data-transfer software that downloads the image from the

camera's SmartMedia card (it actually copies the image from the camera to your Mac), while EZtouch is a utility with which you can edit and print your picture.



## Picture Size

Make sure that your pictures are not too big. Original 4 x 6 images are too big, for example. Remember that on the Internet, your friends and family will be viewing the pictures on a 15- to 17-inch monitor, and you'd like them to be able to view several on a page. Under the Image menu, select Image Size and change the size of the image if it is too big.

Other cameras will come with similar utilities and different names.

You can use these utilities or you can download and process your images entirely in Photoshop LE. To remove your images from the camera, shut down your Mac and turn off your camera. Connect one end of the communications connection cable to the digital socket on the camera (the only place it fits) and the other end to either the modem or the

printer/modem port of your Mac. If you are already using these ports, you will have to unplug their peripherals temporarily while you download your photos. You can reconnect them later. If you are using an iMac or a new G3, then your camera will have a USB connection cable. Power on your camera before you start up your Mac.

Be sure to use an AC power adapter (a special electric cord that may come with your camera or be sold separately, as it is with the Toshiba). Switch the camera to PC mode, and launch Picture Shuttle by double clicking the icon on your hard drive. Make sure that AppleTalk is off. (Go into the Chooser under the Apple Menu and switch the radio button off if it's on.) After launching Picture Shuttle, a camera icon should appear in a window on your screen. If you don't see it, select Update Information from the View Menu, and it should appear. Click Open, and all of the pictures stored on the SmartMedia card should appear on your screen.

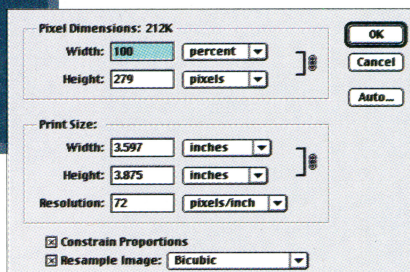
Now it's time to choose which images you actually want to save to your hard drive. First, create a folder on your desktop, then place your mouse pointer over an image until it is selected, and drag the image into the folder using your mouse. Rename the image to reflect its content. Now, you're ready to edit it, which we will do in Photoshop.

## Camera Snaps

Before we continue, there is another easy way to retrieve photos from your digital camera. We suggest the following sequence in Photoshop. (If you have already downloaded the image via the camera's own software, this step is

not necessary, as all your photos will now be in the folder you created on your hard drive.)

Under the File menu, select Import and TWAIN Select to find the driver for your camera that you installed from the CD. Then under Import, select TWAIN Acquire to download images from your digital camera. If Photoshop cannot find your photos, hit Set in the dialog box







# TOTAL ANNIHILATION

## The New Landscape of War!

The word is spreading across the map. Total Annihilation is poised to redefine real-time strategy games on the Mac.

Total Annihilation is a real-time war game featuring true 3D terrain and run-time generated 3D units. Tanks drive up and overhills, tilting and rocking with each bump in the landscape and impact with enemy weapons. Battle on diverse landscapes from lava worlds to vast island-dotted oceans.

Build defenses high in the hills for a better view and a better shot. Planes bank and dive in intense air-to-air combat. Amphibious tanks drive into and dive underwater for surprise attacks.

Total Annihilation's 3D landscape is a revolution that demands deeper strategy and generates more realistic game play. Mobilize your forces and experience the new landscape of war!

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and use the drop-down menu to specify the port (either printer or modem) that your camera is connected to. Also make sure that your camera is on.

Now that you have your images on your hard drive in the correct format, you want to make them look great. That means cropping out unwanted parts of the picture, correcting the colors, sharpening the images, or adding special effects. You can accomplish all this in Photoshop. Remember to save all your photos as JPEGs with the suffix .jpeg or .jpg.

## Making Web Pages

After you have captured all your images, cropped them, and made them look just so, now you are ready put them on your

### Page View

Use Adobe PageMill's Inspector palette to modify the look and feel of your Website. Add color to your text and links, or designate a background image for your pages.

Web page. For that, you'll use a Web-authoring program. We used Adobe PageMill for this example, but there are many other tools that cater to different needs and design skill levels.

You can start with one page for the main album and then add more pages gradually for events such as birthdays and graduations. That way, each occasion will be commemorated with its own page, and your Website will be updated on a regular basis so family and friends will come back often to visit.

If you have ever used a page-layout program or even an advanced word processor that allows you to place images and create tables, then you will have no trouble adapting to visual Web-authoring programs such as PageMill. The big exception is that there are no limits to the length of your document, since a Web page can scroll down and down until it ends.

You will also want to organize all

your picture files inside a single folder. Name your files simply — just use the name of the family member and the suffix .jpeg.

## Creating a Site in PageMill

Unless you are a designer or desktop publisher, you may not feel confident about your online design skills right away. But don't worry. With Adobe PageMill, you can make a very simple, even beautiful, Website to feature your family photo album. PageMill's CD-ROM is full of clip art, neat backgrounds, and color-coordinated buttons and banners that you can easily drag and drop onto your Web page.

PageMill has two major modes of viewing your site: Edit and Preview. Edit mode allows you to edit directly on the page, while Preview imitates the look of a browser and activates the Internet links. PageMill's Site Overview allows

you to view the structure of your Website so that you can see which pages are linked to which, see which pictures are on each page, and be alerted to errors on the page. An Inspector, a small palette, opens with every page, allowing you to modify its colors and attributes.

Start out by launching the program. Under the File menu, hit New Site and name it Our Family. Click the Local Site Location icon and navigate to your hard

drive, click New, and create a folder for your Website. Then click Create after the folder has been placed in your hard drive. The program automatically creates a file called "index.html" inside this folder. Do not change the name of this file, as that is the universal name for all home pages. Then click the page icon in the toolbar to create more blank pages. If you add images into PageMill directly from your browser window, the program sets up a resources folder inside of your Website folder to keep track of them.

Now it's time to establish the look and feel of your Website. PageMill comes with more than 100 styles that you can use, each of which can be

viewed through your browser. Thus, the background, buttons, and banners can be applied while the Web page is open. Simply copy and paste or drag and drop the images you want to use into your open page. You can also navigate to the correct file and insert images via the Insert menu.

To place family photographs, you can create a table right from the main button bar and click and drag a photo inside each cell. Then adjust the size of cells with the Inspector. Underneath the photo, type in a small picture caption.

Combined with the unified style of background and navigational buttons and banners, the overall effect can be simple and elegant.

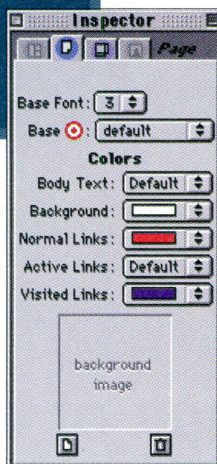
Finally, you'll want to set up the links, which is the way in which the pages are linked to each other on your site. To make a link, simply drag and drop the page icon next to the title directly onto a button or piece of type, and it will form the link. This is one of several ways to create links in PageMill — test this by putting the page into preview mode.

## On the Web

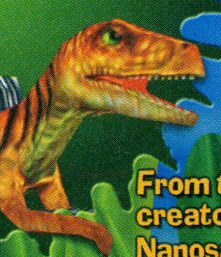
Now that your Website is finished, you need to place it on the Internet. To do that you need to gather certain information, such as your IP (Internet Protocol) address, server name, user ID, password, and other information, including the exact folder to which your pages should be sent. Your ISP will have this info, including your URL.

All of this information is available from your ISP's technical support. After you have entered that information, then click on the Globe icon and PageMill will send your files to the server. To check whether they're there, go online and type in your URL. If you do not see your page the first time you upload to the server, don't give up. Even a small mistake or typographical error will prevent the server from locating your page. So try it again, and be patient until you get the sequence.

You have now created your first Website by putting your family photo album online. You can add more pages and new photos to your new Website in the years to come. ■■■







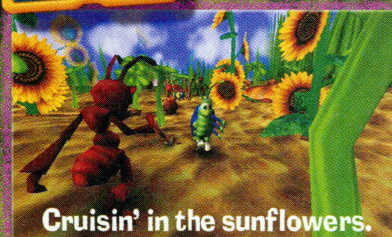
From the  
creators of  
Nanosaur  
comes...

# BUGDOM™

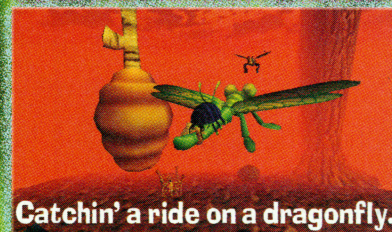


TM

"Ground-breaking visuals and game play...playable by both  
child and adult, male and female" - Inside Mac Games



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- MacGaming.com



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## Find Yourself

### Map Maker, Map Maker, Make Me a Map

**W**here am I? How did I get here? What is my exact location in minutes and degrees? These are all questions we've asked ourselves and loved ones at one time or another. The tricky part is getting them answered quickly and easily. Fear not, brave vacationer, help hath arrived in the form of your Mac.

There are tons of cool geography-related things to do on your Mac: everything from looking at 3D atlases to using the Global Positioning System (GPS). There's enough geography goodies out there to make your Fourth Grade teacher foam at the mouth.

#### Where Am I Going?

If you've ever wanted to visit the Andes without getting attacked by hordes of angry chinchillas, you can easily see every nook and cranny with a 3D atlas. These recent additions to the map world are a godsend for anyone who needs to see what an area looks like without having to count elevation rings. Some atlases even allow you to do flybys of the areas you're interested in, giving you a birds-eye view of the terrain.

Compton's Deluxe 3D World Atlas is an excellent product for world-wide info. It includes road maps of the U.S., maps of major cities, and numerous bells and whistles. You can look at everything from globes to topographical satellite maps.

But even with one of these marvels of

modern mapping in your hot little hands, it can still be a chore to figure out where in the heck Serbia is in relation to Macedonia. No matter how accurate an atlas is when it leaves the



factory, it'll never be able to keep up with international politics. So, for the braver cartographers, there are hundreds of Internet map sites.

If you're looking for accurate and current world info, check out the Library of the University of Texas's Website. Here you can find guides to most newsworthy regions, such as Kashmir and Kosovo, as

well as many maps of the rest of the world and even a historical map section. One look at the links page will show you that there truly is a vast amount of map resources online.

But what if you need highly detailed info on the U.S.? The biggest and most accurate archive of U.S. geographical information is the United States Geographic Survey Site at [www.usgs.gov](http://www.usgs.gov). This government-run site is massive: over 22,000 satellite maps of every inch of the US. Each day new maps are added and highlights of the geological world are augmented by detailed images from our eyes in the sky. For example, the USGS site had numerous maps detailing the effects of rockslides in Yosemite in mid June. If it's ecological information you need, this is the place to go. The USGS specializes in monitoring geological changes and how our environment reacts to us. This is an example of our tax dollars being spent well, for a change.

Now I know what you're thinking: "Well that's all fine and good, but what if I want to find out where my great great-grandfather's uncle was born?" Well there are plenty of options out there for the antiquity inclined. A company called Cartesia has released a series of antique maps called the MapArt Antique series. Each map on the CD is incredibly detailed and can be magnified dozens of times. And they can even be displayed in that aged yellow parchment color to make anyone from the 17th century feel at home. For more info go to [www.map-art.com](http://www.map-art.com).



## How Did I Get Here?

So you've shoveled the kids into the car, strapped the beach chairs to the roof, and piled loads of nonperishable goods into the trunk. How the heck do you get to the beach from here? What better way to map out your trip than on your Mac? *Street Atlas USA* by DeLorme Mapping will let you view, print, and annotate maps of nearly every road in America. This useful tool will help you plan long trips across interstates, highways, even parkways.

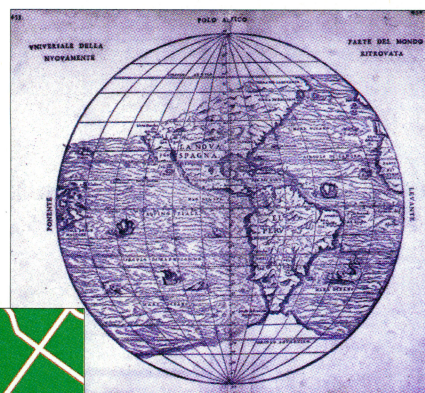
But, like borders, roads change constantly. If that 20-lane freeway outside your city wasn't finished last year, you're not likely to find it on a CD-ROM. So we must venture back onto the Internet. The best part about mapping out your trip on the Internet is the information you're accessing can take into account construction, accidents, and even traffic patterns. At [maps.yahoo.com](http://maps.yahoo.com) you need only input the address of your origin and destination; Yahoo then lists out exactly where to turn, stop, and merge. This is a common feature among search engines these days, and both Lycos and Hotbot offer it as well.

## Where's My Mac?

The Global Positioning System, or GPS, has been the stuff of Tom Clancy novels for years. It allows you to pinpoint your exact location anywhere on the globe through the use of three satellites. While this may sound complicated, it's pretty much the same principle as those graphing problems you did in high school. The main difference is that instead of using only X and Y as the axis of your graph, you have a third axis: Z. Each axis is plotted out by a satellite, and when three of them combine their information, they can tell you your location on the X, Y, and Z axis. This information is then translated into Longitude, Latitude, and Altitude.

So, if we know how this stuff works, why do we care? Well, for around \$200 you can turn your Mac into a GPS system. With a PowerBook (or a Palm IIIx) and a GPS handheld unit, you'll be able to find yourself, no matter how long it's been since your husband last asked someone for directions.

The leader of the Mac GPS market is GPSy (pronounced gypsy). GPSy allows you to connect a whole slew of GPS units to your Mac. You can then chart your position out on almost any kind of map you can imagine. GPSy can perform a whole list of functions, most of which are known by big, hairy



**Find Your City:** The computer revolution is overtaking cartography, from street atlases to old navigational maps from the 1600's.

planned excursion into the outside world.

## X Marks the Spot

Thanks to the wonders of the Internet, we can find out anything we want about Bhutan, a country I'd never even heard of before. And thanks to my Mac, when I go there I'll know how far the nearest gas station is and just how tall the mountain I'm standing on is.

## Why Go There?

Now that you know where you are, why you're there, and how to get somewhere else, where to? Daunting question, isn't it? Well, with a little help from travel book publisher Lonely Planet ([www.lonelyplanet.com](http://www.lonelyplanet.com)) you'll find a worthy destination in no time flat.

There's more travel info here, and maps, than you can shake a 10-foot pole at.

Basically, Lonely Planet is a place for travel maniacs. It's got discussion groups on various destinations, travel advice, guides, pictures, and directions. One trip to Lonely Planet can yield lots of delectable information on a vast array of cities. There's info here on the most remote and bizarre of destinations. As an exercise, I planned a trip to Bhutan, a small country in the Himalayas. First stop: Thimphu, the capital and home of the country's largest archery arena. Then, we move on to a city that sounds like a Rick James song: Bumthang. Evidently the sale of tobacco is prohibited here, so smokes are hard to come by. You'll find all sorts of useful info here, and, when combined with some of the other tools we described, it can make for a well-

planned excursion into the outside world.

With a little help from these creative map programs, your Mac can turn you into a regular Gerard Mercator. So next time you're trying to find yourself, try asking your Mac. **III**

## Online Resources

**University of Texas Map Archive**  
[www.lib.utexas.edu/Libs/PCL/Map\\_collection](http://www.lib.utexas.edu/Libs/PCL/Map_collection)

**GPSy**  
[www.gpsy.com](http://www.gpsy.com)

**Compton**  
**Compton's 3D World Atlas**  
[www.compton.com](http://www.compton.com)  
423-670-2020

**DeLorme Mapping**  
**Street Atlas USA**  
[www.delorme.com](http://www.delorme.com)  
800-452-5931

**Cartesia**  
**MapArt Antique Series**  
[www.map-art.com](http://www.map-art.com)

**Lonely Planet**  
[www.lonelyplanet.com](http://www.lonelyplanet.com)



## Virtual Physics: The Eggs of Time

★★★★

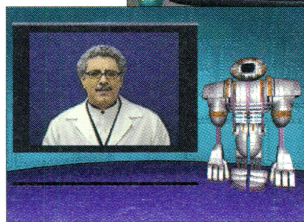
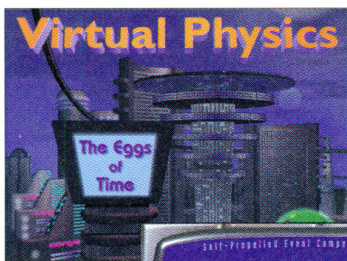
\$35, Cubic Science Inc.

800-383-6363

www.virtualphysics.com

Ages 9 to 15

*Virtual Physics: The Eggs of Time* won't replace the classroom, but it can provide an interesting introduction to basic physics. If adventure and interactive exercises motivate your student, you should consider this program. It does a good job of presenting and explaining basic physics concepts in the context of a mission to save science from alien destruction.



After being introduced to the game through a series of short movies, the student selects a time period to visit. Each one (Prehistory, Antiquity, Middle Ages, and Industrial Age) offers experiments that explore physics concepts related to that period (motion, forces, simple machines, and thermodynamics, respectively). The student searches a QuickTime VR landscape to locate and participate in the interactive exercises.

The player is awarded a "Physics Fact" after completing a short test after each exercise. The object of the game is to collect twenty facts, thereby saving science.

You can gain additional information and tools needed for certain experiments in the "Hall of Memories," where tutorials discuss the lives and accomplishments of famous scientists. You get access to the glossary, tutorials, and a bank of problems using a virtual PDA, which also serves as the game's navigation interface.

This program was designed for grades six through nine, and is written more for boys than girls. The material is presented in easy-to-understand language, accompanied by images and animations that describe the concepts in entertaining ways.

Learning science can be tough and sometimes boring. So add some adventure and fun to your student's learning experience with *The Eggs of Time*.

— Ted Bade

## Mia: The Search for Grandma's Remedy

★★★★

\$30, Kutoka Interactive

877-858-8652

www.kutoka.com

Ages 5 to 9

PowerPC required

If I were rating *Mia* on looks alone, it would get five apples. The 3D characters and environments in this adventure game that stars a young female mouse are as refined as those in the movie *Toy Story*, or those old Rankin-Bass holiday specials.

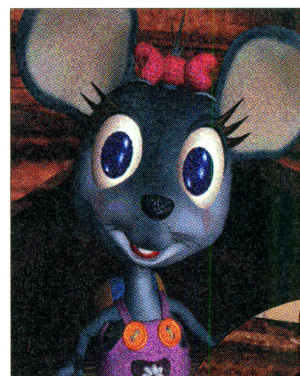
The story-line is decent, too. As the title suggests, Mia's grandmother is ill. To make matters worse, an evil rat steals the sparklies Mia was given to pay for the cure, and so she and the player set out on a quest for both.

The navigation method is also great: *Mia* is mouse-controlled (heh heh) and follows the cursor, so there's no incessant clicking needed to get her to cross a room. Along the journey, players come across various word games — which is how they help Mia earn sparklies. Kids can play at four levels

of difficulty, which they can adjust any time. But while the nine learning activities are all different, a repeat play at the same level provided no variety. Some of the activities played at the lowest level seem too difficult for five-year-olds, while some

played at the highest level (as well as the overall adventure) seem too simplistic for nine-year-olds.

The adventure doesn't change with repeated plays either, so kids may not want to use the product more than once — a big drawback for an educational CD.



Aside from Mia's sickeningly sweet voice and occasional freeze-ups, if your kids are constantly seeking new thrills, this is not the right CD to buy. But if eye candy is of primary importance, I can heartily recommend it.

— Carrie Shepherd



## Blue's 123 Time Activities



\$20, Humongous Entertainment

800-499-8386

www.humongous.com

Ages 3 to 6

PowerPC required

As a number-phobe, I never would have believed it. Blue, the cerulean-spotted puppy of TV fame, makes even math fun. With a backyard fair as the backdrop, kids play six fun games to earn Blue Dollars — unwittingly learning early math skills all the while.

Playing Baby Bear's card game, kids exercise matching skills. With Bell and a set of scales, kids learn about weights and comparisons, weighing souvenirs for cheerful fair-goers. Games of Mother May I? and adding and subtracting supplies for building a train track help kids practice simple calculation. Sorting is made fun at Mr. Salt and Mrs. Pepper's snack bar. And pattern recognition gets a workout as kids help Felicia the Felt Friend decorate parade floats.

But *Blue's 123* doesn't have an educational feel — which is good. Each activity is so entertaining, kids will forget they're supposed to be learning something and will want to keep playing. The Blue Dollars kids earn for each activity can be redeemed at the Prize tent. There, they count out dollars to buy items, which are combined to form Big Prizes when they're put together. This, too, provides the incentive to keep playing the increasingly difficult activities.

Games are saved automatically as kids quit the program, but be careful! In our trials, using the Command=Q combo to quit didn't save the game, but clicking on Quit works just fine. This is a minor quibble, but could cause some tears if your kids lose one of their Big Prizes that they've rightfully earned through hard work.

The bottom line, though, is that *Blue's 123* is kids' software done right, and it will earn a high score in any preschool-populated household.

— Carrie Shepherd



## Thinkin' Things: Toony the Loon's Lagoon



\$30, Edmark

800-691-2985

www.edmark.com

Ages 4 to 8

PowerPC required

Travels through Toony's lagoon left me wondering whether my learning capacity might be stronger if I had used such playful learning tools as a youngster. The six exercises in the lagoon will entertain children and equip them with skills necessary for classroom learning.

In separate exercises, hip Oranga Banga and wacky Toony Loon's adventures help to enhance a child's visual and auditory memory. In Explore mode, kids play either Oranga's drum kit or Toony's magical xylophone, creating sounds and familiarizing themselves with each instrument. In Q&A mode, Oranga and Toony take over, playing patterns for kids to repeat. Setting the screen to "at night" isolates auditory memory as a child repeats what is played from a dark screen. This activity in particular exemplifies the incredible innovation in teaching that the *Thinkin' Things* series is capable of.

Two more *Lagoon* exercises prompt kids to observe patterns and differences, testing their logical skills. Feathered Friends asks kids to recreate a missing baby bird in a sequence, allowing them to find similarities. Frizzle Guides challenges kids to match creatures to customer requests: I like green and spots, but not curly hair. Both exercises contribute to the cognitive development of your kids.

Finally, Flying Spheres and Flying Shapes allow kids to simply play while sparking imagination and creativity. Kids use spheres, blocks, colors, and sounds to make their own artwork then set it in motion to create movement and designs.

The *Lagoon* is not fast paced, which may discourage kids who seek a more action-packed adventure, and some sounds are slightly eerie. But overall, Toony and friends offer an educational environment with progressive challenges that kids will enjoy.

— Carolyn Blackburn





## Network Gaming for the Passive Aggressive

Or: How to Blow up Your Friends without all that Messy Cleanup

Everyone's played a two-player game of some type. Battleship, Monopoly, Hearts — there are millions of different competitive games out there. But what if you've grown weary of the day-to-day drudgery of board games? What if playing against only one or two other people has become passé? Well, my friend, you must venture forth onto that marvel of the modern computer age, the network.

There are many different types of networks out there, but they're all generally the same. For the most part, they are all groups of computers talking to one another through simple switching systems, much like a phone switch in the telephone system. A network can be as small as two computers hooked together through ethernet or as large as the Internet itself, comprising millions of computers. Naturally, with all this expensive equipment involved we must exploit it to its fullest potential.

That's where games come in. What's the use of being able to talk to 500 people all over the world at once if you can't reach out and crush someone? So, here are five easy steps to creating the perfect networked gaming environment:

### 1: Get Connected

There are a lot of ways to get connected to other computers. The easiest way is to use the Internet. Most Internet-playable games only require that you know the

location of your opponent. Of course, their location is a tad ethereal, as they're not really anyplace tangible once in cyberspace. So, thanks to years of com-



munications evolution, today we have the ubiquitous Internet Protocol (IP) address. This string of four numbers separated by periods is your virtual address. There are all sorts of crazy rules for what those four numbers can be, but for the most part, an IP number will look like this: 128.218.121.3. In order to play a

game over the Internet, you must know the IP address of your opponent and they must know yours.

Once you have said address, it's a matter of agreeing upon a starting time. This is easier said than done, however. You'll probably want to use a paging program such as ICQ Inc.'s ICQ ([www.icq.com](http://www.icq.com)) or America Online Instant Messenger (automatically loaded with Netscape Navigator). These programs allow you to keep track of your friends and send them messages when they're online. Thus, when your trigger finger becomes itchy, you simply have to page friends who are online and challenge them to a duel.

Of course, there are easier ways to get into online multiplayer gaming. Games such as *Quake* and *Unreal* use a client-server system to host their online games. This basically means that computer A is a meeting point for players E, I, O, U, and sometimes Y. Rather than everyone meeting up on ICQ, players can simply log onto the server they wish to play on and wait for their friends to arrive. Fortunately, most servers tend to be busy thoroughways for rogue gamers, so even if you don't know anyone to play *Quake* with, you can usually find a game already in progress.

For those of you who enjoy getting your hands dirty, there are other ways to get that grand *Starcraft* war going. If you have two or more Macs lying around the house, you can grab a copy of Farallon's



new HomeLine (see *MacHome* August 1999). HomeLine lets you turn your home phone lines into a computer network with a minimum investment of money. Plus, it's easier than running reels of ethernet cable around the house. Having a network at home can be very dangerous for productivity. Yes, you'll be able to quickly transport work from one machine to another, but once you play a game of eight-player *Marathon*, you'll be hard pressed to return to work.

Getting a game running on your home network can be a bit more complicated than doing it over the Internet, mainly because you have to configure each computer individually for play. Let's use *Marathon* as an example. The first thing you'll need to do is put a copy of *Marathon* on each computer. Once each copy has been loaded, you must choose which computer will play host. Usually, the fastest computer on the network should be the host, as it will most likely be required to keep track of all the action. For as long as you play the game, the player using the host computer becomes God: This player chooses maps, rules, time limits, and even who gets to play. Once the game is set up, everyone else must choose a name and color. Finally, the host computer starts the game and everyone else joins.

## 2: Get Games

Okay, great, you're online, you have your whole house lined with ethernet cable, or you're hooked up to HomeLine. The first thing you'll want to do is figure out what to play. There are literally hundreds of games to choose from. For a complete list of every networkable Mac game in existence, head over to Rick VanDerveer's wonderful database [www.macleedge.com/netgames](http://www.macleedge.com/netgames).

Some of the newer games out there will play over the Internet in one way or another, but for the home user, most new games are a bit too big and mean to run on that old Performa you dug out of the garage to hook into your network. Fear not; there's a wealth of low-end network games out there. Some of our favorites around the office are Bungie's *Marathon*, Blizzard's *Warcraft II*, and MacSoft's *Duke Nukem 3D*. All of these

games will run on any PowerPC and some of the higher-end 68K Macs. Best of all, they all permit up to eight separate players over the network.

For those who shun all modern



ideals, there is the venerable champion of Mac network gaming: *Bolo*. *Bolo* is a simple game in which you control a small tank in a hostile world. You must build up a defense system consisting of walls, pillboxes, and mines — all while fending off all comers. Best of all, *Bolo* will work on almost any Mac, be it black-and-white or Bondi and Ice.

## 3: Make Some Enemies

Now that you have all this wonderful stuff to play with, whom are you going to humiliate? If you've set up a home network, you might consider throwing a gaming party. What could be more fun than a night of computerized debauchery? And no one will have to go to the doctor with torn ligaments.

For those more reclusive souls seeking to play online, there are many ways to meet other gamers. Some games, such as *Quake*, *Unreal*, and *Myth 1* and *2*, are client-server based and thus do not require you to have an opponent before you can play. *Myth* is particularly good at this, as are Blizzard's *Starcraft* and *Diablo*. These games use *Bungie.net* and *Blizzard.net* respectively. These two networks exist solely for the purpose of connecting you to others who want to topple you from your pedestal. They use



**Shoot First:** Games such as *Myth 2* and *Quake 2* refine the ground breaking internet play of their forefathers.

a standard text-based chat system both in game and out of game, so you can win friends, influence people, and above all, talk trash.

If you're looking for some older games online, you'll need to get onto IRC or Internet Relay Chat. IRC is a humongous system of servers strung across the globe and used for text-based chatting. There are millions of people on IRC, and a lot of them are gamers. You can get an IRC client at [www.macirc.com](http://www.macirc.com). IRC is a client/server system, much like many games, but here, the servers are large networks of linked chat servers. These networks make up the major chat sites on the net: Effnet, Undernet, Dalnet, and others. Any of these three play host to large gaming communities. The bigger the network, the more people who will be chatting on it.

Once on an IRC server, try joining rooms named after popular games, such as #quake and #dukenukem. Two things to remember when searching for a chat room: IRC chat room names must be one word (#Duke\_Nukem instead of #Duke Nukem) and all chat room names begin with a #. Unfortunately, IRC's lack of rules and structure can make finding opponents a bit difficult, but it's the simplest way to find a gaming group if you've never played before.

When searching for gaming partners, just remember that being a newbie isn't a crime. Ask questions and be friendly. Usually, gamers are more concerned



with playing than chatting, but most can be quite amiable when given a chance.

#### 4: Learn the Skills

One thing you should be aware of before you take the network gaming plunge is that most people out there are going to be better than you are. No matter how long you've played against the computerized opponents in *Myth* or *F/A-18*, you'll probably be eating a lot of crow for a while. Computers may be able to play chess, but they usually don't know the advantages of flanking. Rather than getting discouraged, try to watch the tactics of those around you. Some games, such as *Quake*, can be extremely hard to play due to the highly polarized nature of competition: Whoever has the rocket launcher tends to win by a very large margin.

Basic strategies of online games tend to revolve around using set tactics over and over rather than trying to innovate. Most games don't have the depth to allow for much variation in strategy (although *Myth* completely disproves this). Try to stay healthy in first-person perspective games. Armor, health, and invulnerability should be your best friends. Most battles in *Quake* tend to center around health packs, so whoever controls these areas of the map can usually control the scoreboard. Another strategy that helps is to be ruthless.

While some may consider an attack while your opponents are away from their keyboards to be dishonorable, there usually aren't any rules about sending a few men out to sniff out an opponent's location while he's gone. Remember, most of the people you'll fight online will have very few qualms about exploiting to the fullest any advantage that presents itself.

Above all, watch and learn. If you start getting your butt kicked, pay attention to your opponent's tactics. Some games allow for some pretty unintuitive strategies that may not be obvious at first. *Quake* maniacs, for example, use a technique called "rocket jumping" to get to those tough-to-

reach spots. In order to rocket jump, grab a rocket launcher, then aim it at your feet. Now, hold onto your boots and pull the trigger.

#### 5: Join a Clan

Some of the more popular games out there have spawned cult followings in the form of clans. Games such as *Quake*, *Myth*, *Unreal*, and *Starcraft* have thousands of loyal fans who take their gaming seriously. So seriously, in fact, that they form groups with enigmatic names such as, "The Discordian Society Quake Clan," "Erisian Defense Force," and "The Brotherhood of BoB."

These clans can range from mostly harmless groups of part-time gamers to ravaging bands of marauding lunatics, ready to fight for their clan's honor at the drop of a hat. There's a clan out there for everyone. Some games, such as *Myth II*, keep track of clan rankings, listing the best clans and players each day.

Clans are a great way to learn new skills and stay connected to a gaming community. Clans challenge each other via e-mail with such enigmatic messages as, "Clan Bertha challenges you. Send your two best generals to 128.121.23.53 tonight at 9PM." Clanning can be one of the more interesting experiences available online.

If you feel you're becoming fairly competent at a specific game, you might want to start searching for a clan. Most clans have some form of a "rite of passage" in which you'll have to prove your ability. For this reason, it's usually a good idea to stay away from clans until you're able to hold your own in combat.

#### You're Still Reading This?

Come on! Get out there and get gaming! Whether you're playing *Marathon* at home or *F/A-18* online, you'll be kicking virtual butt with ease after a little practice and some trial and error. Network gaming is growing at an exponential rate, and if you start your training now, you'll be a pro by the time the rest of America realizes it's missing out. **VII**

## Reach Out and Smoosh Someone

**W**ell, now that you know how to get a network game running, let's take a look at how the rest of us got here. In the beginning, there was *Bolo*. Thou shalt not hold any network Mac game before *Bolo*. This masterpiece of shareware gained a cult following on college campuses around the U.S., thanks to the proliferation of Macintosh networks in the mid to late 80s. *Bolo* sparked dozens of add-ons and enhancements over the years, and to this day, thousands of maps (used to change the battlefield layout) can be found in a Yahoo search for "bolo."

Ostensibly the Macintosh world came to a screeching halt when Bungie released its fourth and most influential title: *Marathon*. Before *Marathon*, Bungie had released *Minotaur*, which is available in its new Mac Sack bundle. *Minotaur* laid the groundwork for *Marathon*, allowing numerous computers to interact in the labyrinth of Crete across an Appletalk network. When *Marathon* was released in the early 90's, those dusty halls of *Minotaur* were filled once again, this time with gun-toting space marines.

For Bungie, *Marathon* was a catapult into the mainstream. For the first time ever, Windows users were jealous of a game that was only available for the Mac. *Marathon*'s easy networking controls and fun gameplay sparked two sequels.

Now, Bungie has taken the reins of the online gaming movement, and along with Blizzard, id, and others, has created an entirely new population of network gamers: the Internet gamer. No longer content with playing Web-based chess, players are flocking to other sources for their competitive fixes. Today, at any time of day or night, thousands of players can be found on servers running *Myth II*, *Starcraft*, *Diablo*, and *Quake*.



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## Can You Fly, Bobby?

**E**lectronic Arts has apparently been listening to Mac gamers: Not only have they announced a Mac version of their popular John Madden football series, but now they've said that they will be releasing a new skydiving game for the Mac and PC simultaneously. Now, I know what you're thinking: Skydiving? How can that be fun? It's just falling really, REALLY fast. Well, yes and no. Evidently, skydivers can spice up their day by landing on targets, doing simple tricks while in the air, and generally abusing gravity. According to Electronic Arts, **Skydiver** will allow you to get the full experience through numerous variations on the theme of jumping out of a plane at ridiculous altitudes. The game should already have landed on a shelf near you. I can hardly wait to see what happens when you don't open your chute.

Electronic Arts, 800-245-4525, [www.ea.com](http://www.ea.com)



## Sexy Women and High-Caliber Automatics

**A**nyone who's into comic books has seen **Heavy Metal**, the comic that made a name for itself by replacing normal heroes with scantily clad ones. A few years back, **Heavy Metal** was made into a movie and has become a subsequent cult classic. Well, the cultists should be dusting off their robes soon, as a sequel to that movie will soon hit the US. **Heavy Metal F.A.K.K.2** — game and movie — will be unleashed to comic fans around the globe, and we enthusiasts will be feeling the brunt of the cult fervor. Ritual Entertainment, a division of the Gathering of Developers, will be bringing **F.A.K.K.2** to the computer screen in early 2000. Best of all, it should be released simultaneously for the Mac and the PC.

Ritual Entertainment, [www.ritual.com](http://www.ritual.com)



## More Women and Guns

**S**o the burgeoning video game market has taken the world by storm.

That's all fine and dandy, but just as the Internet was originally the domain of mostly male computer nerds, so, too, is the gaming industry. Anyone who was at E3 knows that no self-respecting woman would feel welcome in an industry that created the booth babe (women who lounge around expo booths in bikinis and hand out fliers).

That is, until now. Women have become the fastest growing segment of the video game market, and there's no sign of any slowing.

Well, now all those girls who just wanna have fun can meet and greet each other at **WomenGamers.com**. The site should be fully constructed by this fall and will feature tons of interesting content for the video game vixen in you.

WomenGamers, [www.womengamers.com](http://www.womengamers.com)

WomenGamers.com

## Alpha Centauri Is Coming

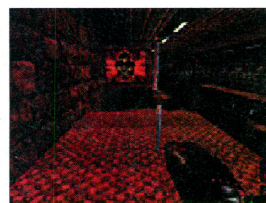
**E**ver since an entire generation of gamers lost their lives to **Civilization**, Sid Myer has been waiting for the right time to make a true sequel. For those of you who didn't spend months playing **Civ**, the game's goal was to found a colony on Alpha Centauri, our nearest neighbor in the galaxy. Well, it's been over six years since **Civilization** was released, and now the world can finally play **Alpha Centauri**, the sequel. And now, thanks to our good friends over at Aspyr (you know, the guys who brought us **Tomb Raider**), you too can colonize **Alpha Centauri**. Aspyr has teamed up with Westlake Interactive, the guys who ported **Unreal**, and hopes to release the title around Christmas.

Aspyr, 512-708-8100,  
[www.aspyr.com](http://www.aspyr.com)

## Unreal Jumps on the Bandwagon

**W**ith all the recent updates to **Unreal**, we fans of the title started to wonder why no one was updating their mod packs for the Mac side. In case you're wondering, mod packs are independently made add-ons for existing games. Mods can add weapons, maps, and even new game rules.

Ever since **Quake** players discovered the allure of playing Capture the Flag with large guns and 20 of their friends, many **Unreal** players have been demanding their own version of the game. Enter **RealCTF**. This mod contains new skins, maps, textures, and even a new weapon (a grappling hook). **RealCTF** requires a fully updated version of **Unreal** and can be had at [www.planetunreal.com/realctf](http://www.planetunreal.com/realctf).





## Age of Empires

●●●●●

\$49, MacSoft

[www.wizworks.com/mac](http://www.wizworks.com/mac)

800-229-2714

It's been a long time since the real-time strategy genre was created. Since then, real-time strategy has become a buzzword akin to 3D or multimedia; it gets tacked onto every product imaginable. So, when I first came across *Age of Empires*, I was a little bit skeptical. So far, most games that attempt to mix older genres with real-time strategy have been horrendous. But *Age of Empires* is that rare breed of game that can take classic empire-building and turn it into a completely new experience.

*Age of Empires* is half *Civilization* and half *Warcraft*. The basic premise is that you are the supreme ruler of a tribe of hunter-gatherers. You must gather food, wood, gold, and stone in order to build your empire up through the stone age, tool age, bronze age, and beyond. To do this you use standard real-time strategy tactics: gather resources, build an army, crush your opponents, and hoard more resources. Each time you advance to a new age, new buildings, units, and technologies become available.

While the game's rules are simple, gameplay can be quite diverse. There are enough units to satisfy almost any strategy. Unfortunately, some of them are ridiculously powerful and can really unbalance the game. Priests, especially, are a pain, because they can convert your troops into enemies. Naturally, when a priest comes walking into your base, it can be rather disconcerting.

With practice, however, the game can become almost ludicrously easy. The artificial intelligence (AI) that controls the computerized opponents is quite good against the untrained, but after a few days of playing, it's easy to defeat with little effort. This makes for an odd combination in gameplay: *Age of Empires* is incredibly addictive at first, but rather than becoming gradually less interesting, its appeal drops off suddenly once

you discover the AI's weaknesses. While you can increase the odds in the enemy's favor by giving it the advantage, the division between a handicap and a completely unfair fight is rather slim.

*Age of Empires* is a fun game and very well executed, but due to its lack of consistent challenge, it can leave you feeling lost and lonely after extensive play. While it may be good to leave your audience wanting more at the end in show business, it's not a good practice in the games industry, because an unfulfilled gamer is not a happy gamer. Still, *Age of Empires* will keep you addicted to its compelling gameplay right up until the moment you outgrow it.

— Alex Handy



## Tribond

●●●●●

\$25, Patch Products, Inc.

[www.patchproducts.com](http://www.patchproducts.com)

919-462-0001

If you're looking for a nonviolent educational game that is actually fun, consider

*Tribond*. This puzzle game, in which a player tries to determine the similarities among three seemingly unrelated things, is an edutainment title that can help develop critical thinking skills. Play it on your own or with friends via modem, ethernet, or the Internet.

The rules are simple: roll the virtual dice (which determine your puzzle category, your puzzle, and how far your piece moves), solve the puzzle, then move one of your three game pieces on one of the three game boards. The object is to get all your pieces home first. The problem is that the other players (up to five, either virtual or real) are trying to do the same thing, and the puzzles tend to be — well — challenging.

There are over 1,400 puzzles in seven categories, including entertainment, sports, academics, and a difficult picture-based one. They are presented by one of four hosts, two pleasant females and two annoying males. The player must type in an answer or select one before the clock runs out. But it's not over yet. The other players have a chance to vote on the answer — accepting, rejecting, or asking for more details.

*Tribond* is a real challenge. The relationships are often obscure and require a certain amount of knowledge of historical, recent, or current events. You might need to figure out what barns, arms, and leaves have in common. Intrigued? Boot it up and put on your thinking cap!

— Ted Bade





## Caesar 3

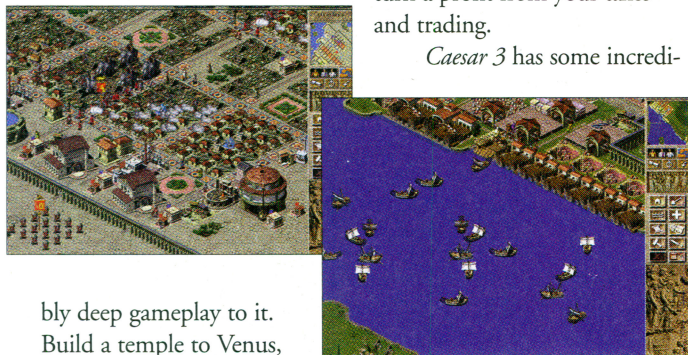
★★★★

\$39, Sierra  
www.sierra.com  
800-757-7707

When last we left Caesar, the emperor of all roads was deftly managing his city, army, and people. In the tradition of other great empire-building simulations, *Caesar 3* continues this tradition of micromanagement in ancient Rome. As a vassal of Caesar, you are charged with bringing your city up to snuff. To do this you must build temples, farms, housing, baths, aqueducts, and hundreds of other interesting structures.

The true charm of *Caesar 3* lies in the alluring blend of strategies needed to win. The game features military, social, and political posturing and tons of good dramatic intrigue. You can do everything from kissing butt to kicking it. There is a fully detailed political structure to the game, including a dynamic relationship with Rome. Your city must maintain the standards set by the supreme city: Your wages must be comparable to Rome's, you must stay on Caesar's good side by sending him gifts, and above all you must turn a profit from your taxes and trading.

*Caesar 3* has some incredi-



bly deep gameplay to it. Build a temple to Venus, and Neptune will become

jealous and send floods. Hold too many festivals for a single god and he will become greedy and expect constant tribute. And the gods are only the beginning of your worries. Much as in the real Rome, there are constant fires, collapsing buildings, plagues, and other nasty disasters. As the game progresses, you begin to gain sympathy for some of the tyrannical rulers of the day: You'd be mean too if your granary fell over three times in a month!

The interface is relatively crisp. While it's not a standard Mac interface, it's not too bad. Selecting military units can be a tad frustrating, as there is no selection tool. You simply click on them with whatever tool you're currently using. While this is easy enough, you'll be grinding your teeth the first time you miss a unit and accidentally bulldoze a building. The graphics, on the other hand, are quite striking. Your cities really seem to come to life, with amazingly detailed buildings and terrain. Every citizen in your town is represented graphically, and at a relatively reasonable size, so you can get a feeling for whom you're ruling.

If you've ever dreamt of becoming an evil magistrate, kindly king, or fearless commander, *Caesar 3* can give you a darn good idea of what it'd be like.

—Alex Handy

## Falcon 4.0

★★★★

\$49.95, MacSoft  
800-229-2714  
www.wizworks.com/macsoft

Here's your chance to fly F-16 combat missions over the Korean peninsula and do it in style. But be warned: MacSoft's new *Falcon 4.0* is not for the faint of heart, nor for the timid of machine. It takes a heap of flying prowess and one heck of a gaming platform.

If you've got the necessary hardware, it's a gorgeous game. You get training missions, an instant-action mode with waves of planes flying down your throat, a dogfight mode, and a rich campaign mode with detailed scenarios that blend both ground war and air war conditions. Terrain unfolds with lush accuracy. Radio chatter fills your ear. SAMs streak up at you. MIGs lie in wait. All the proper wartime effects are there — ground artillery fire, smoking hulks, contrails, missile tracks.

This is no simple arcade flier. It's a serious piloting experience, with intricate avionics. Even the manual is complex. By the time you read all 27 chapters and a pile of worthy appendices, you've run through almost 600 pages. Tolstoy used fewer pages to write *War and Peace*.

Then there are those tough system requirements. Just installing *Falcon 4.0* is an experience. The compact version sucks up 175MB of hard-drive space. If you go for the recommended installation, you'll need 375MB, and the full load (600MB) can give weaker machines a heart attack.

To test it, we tried it on a new G3 with an ATI Rage 128 card and on an older Starmax with a 603e processor and a Voodoo2 card. The G3 test was incredible — breathtaking and very responsive. The older 603e never got off the ground, however. First there was too little RAM to run it, then there was an "unexpected error" signal and a refusal to run, sending us fleeing back to the G3.

Still, if you've got a muscle machine and the chutzpah to deal with the complexities, *Falcon 4.0* is a tremendous flight simulation. It's incredibly detailed and hard to learn, but it's about as realistic as you can get and eminently satisfying.

—John Lee





# Bugdom



\$30, Pangea Software

www.pangeasoft.net

512-367-8116

Anyone who owns an iMac knows Pangea Software. Their last game, *Nanosaur*, was bundled with every iMac shipped out of the factory. With *Bugdom*, Pangea makes its first foray into the commercial market, and what a step it is. *Bugdom* makes *Unreal* look like a kid's drawing. Pangea's reputation for graphical excellence is well defended with *Bugdom*. If you've got the hardware to run the game, it is your moral obligation to do so.

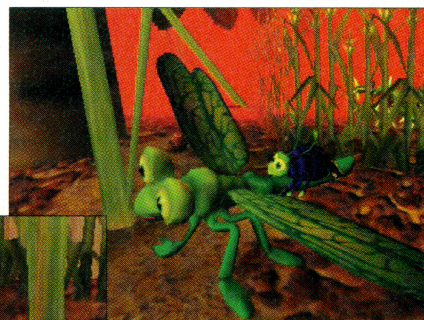
Evidently, we've hit the insect stage of computing: everyone uses their computers to make 3D models of bugs these days. With the recent releases of *Antz* and *A Bug's Life*, *Bugdom* is in good company in the digital insect world. And it should be; the graphics in this game could give some scenes in *Antz* a run for their money. But *Bugdom* has more to it than simply graphic flair.

You are Rollie McFly, a strange amalgam of about five different bugs. You've somehow stumbled into the job of saving the kidnapped ladybugs from the evil fire ants. Of course, there are plenty of other evil insects out there to make your day that much harder. Your foes range from slugs and rock-throwing ants to bats and mosquitoes. The baddies are simple pattern-based enemies; they attack the same way every time, but they rely on numbers, not intelligence. There are, however, a few random elements in the baddy category. Of particular note are the massive feet that barrel through the undergrowth you inhabit. *Bugdom* offers a whole new perspective on the idea of being stepped on.

The gameplay revolves around simple platform game traditions: run, jump, roll, and kick your way through levels to find keys to the next door while freeing ladybugs from traps. There are a few power-ups, but nothing terribly innovative. Fortunately, despite the rather unoriginal gameplay, the action is fast and furious. The levels themselves are massive, and there is very little backtracking. Pangea has really addressed the most common problems of the platform genre. There is no extra-tricky jumping, quick-death spots, or frustratingly difficult maneuvers. This is quite refreshing in a sea of platform games gone mad.

On the audio front, *Bugdom* holds up quite well. You'll probably turn the music down after an hour or so, but only because it repeats so often. Sound effects are pretty standard, and at times they don't seem to fit with the gorgeous visuals. This is a minor quibble, however, since the game does not rely on immersion to grab the player. The graphics can do that on their own.

Overall, *Bugdom* offers a rewarding experience for anyone who enjoys a *Mario*-style game. There's no violence, unless you consider a bug being eaten by a fish and stepped on by a bare



foot violent. This is a wholesome game you can easily take home to Momma without being afraid of corrupting the youngsters.

The only real problems with the game are the low replay value and a slight problem with Rollie. Unfortunately, it's hard to make a platform game that can stand the tests of time. While you'll be playing *Bugdom* for a long time, eventually you'll probably get tired of the ten levels included. Hopefully, Pangea will create some add-on levels or release instructions on how to create them. The second problem is a bit more trivial: technically, Rollie is a tick, not a bug. Your average everyday insect has only six legs, while Rollie has eight. And, as we all learned in science class, ticks are the only arachnid with a bulbous body like Rollie.

It's been a long road for Pangea. Ever since *Weekend Warrior*, it's been producing games with stunning graphics and limp gameplay. It's good to finally see a title that can truly be called fun. Pangea has a winner on its hands this time, thanks to the combination of tried-and-true gaming standards and eye-tickling visuals.

— Alex Handy



## Adding Volumes

### Choosing an External Storage System for Your iMac

**A**s a new iMac owner, you're likely warming to the idea of backing up your valuable data. It may also have occurred to you that you'd like to send a rather large file to a friend across the country. Sadly, the iMac lacks a floppy drive or any other means of removable storage, rendering either task quite impossible. All is not lost, however.

iMac owners have a growing selection of external-storage devices, falling into four distinct categories.

#### Floppy Drive

Adding an external floppy drive to your iMac will help fill the void left by Apple and allow you to easily trade small files with friends in the office or across town. It's important to keep in mind, however, that it takes just under five minutes to transfer a 1.4MB file with a 56k modem. Moreover, aside from Microsoft Word documents and Excel spreadsheets, many files today are larger than 1.4MB. This means you'll have to use a compression program to squeeze the file onto the disk, or even break it into segments and store it on several disks. As a result of its tiny capacity, a floppy drive is really a very poor backup solution. Still, it's an inexpensive option — about \$89 for Newer's uDrive.

#### Super-Capacity Floppy Drive

Super-capacity floppy drives offer an excellent solution to new iMac owners looking to maintain compatibility with traditional floppy disks, while at the same time searching for a far more reasonable means of backup. Imation's

\$169 SuperDisk drive reads and writes to both standard 1.4MB floppy disks and a much-larger 120MB disk.

The drive is faster than a floppy and works well, but at \$15 per 120MB disk, it's certainly not the cheapest media per megabyte. The biggest drawback to the super-capacity floppy is its slower rate of adoption by consumers. Since fewer people own the drives, it's unlikely you'll be able to copy a presentation to SuperDisk and ship it to an associate.

#### Zip Drive


Iomega's Zip Drive has long been touted as the successor to the floppy drive. But the Zip has found the distinction difficult to attain because it is not compatible with floppy disks. Still, the Zip is without a doubt the most common tertiary storage device. Apple has been so confident in the Zip's potential that it has offered the drive as an option with its Power Macintosh computer for over two years. The 100MB USB Zip drive

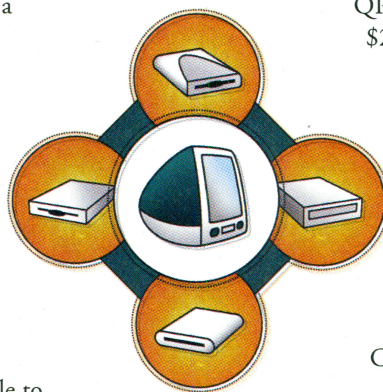
sells for \$129, with 100MB disks available for as little as \$10. It's a great solution for backing up data and sharing large files. Also it's faster than floppy drives or SuperDisk drives.

#### CD-R/CD-RW Drives

Although it's certainly not the cheapest solution, a rewritable CD drive might well be the smartest. iMac owners can store up to 650MB of data at a time with one of the new USB CD-RW drives now on the market.

QPS's Que! drive sells for \$299, while Sony's USB Spresra retails for \$349. The caveat is that a CD-RW disk can only be read on another CD-RW drive, and disks cost about \$10. But CD-RW drives can burn both CD-RW and CD-R media.

On the other hand, CD-R disks (on which you can write only once) work on any CD-ROM drive, and cost about \$2 per disk, thus offering a price per megabyte far below any other removable media. And since no secondary storage device is more prevalent than the CD-ROM, CD-R offers ultimate portability. Press a disk and send it to a coworker across the country — no need to have it returned to you. One downside is that you must use a special application rather than drag and drop, to press items to a CD-ROM disk. The added bonus is the ability to create your own music CDs. 





# DESCENT<sup>TM</sup> 3

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# TURN YOUR WORLD INSIDE OUT



## Your Passport to the World Wide Web

**B**eginning with Mac OS 8.5, Apple has been giving your Macintosh language lessons. One of the optional installs with 8.5 and higher is the Multilingual Internet Access. It adds the ability for your Mac to display Japanese, Chinese, and other non-Roman language characters.

You add Multilingual Internet Access by selecting the Customize button in the Mac OS installer. Scroll down in the resulting list and check the box to the left of Multilingual Internet Access.

If you choose the Recommend Installation, you'll get the software needed to display, and in most cases print, Japanese, Korean, Simplified Chinese, and Traditional Chinese. Click the pop-up menu to the right and select Customized Installation if you want to add Arabic, Devanagari, Gujarati, Gurmukhi, or Hebrew.

Once the installation is finished and you've restarted, you'll notice that a flag icon appears between the clock and Application menu in the Menu Bar. This new item is called the Keyboard Menu, and it provides quick visual feedback for the language that's currently active. In most cases, you'll see the U.S. flag by default, indicating that U.S. English is the selected language.



By clicking on the Keyboard menu, you can see the other installed languages and switch to an alternate choice. Selecting the Customize Menu... option opens the Keyboard control panel and allows you to select from the language options presented in the menu.

Now that you've got the software installed, let's see it in action. A good place to start with is the Website

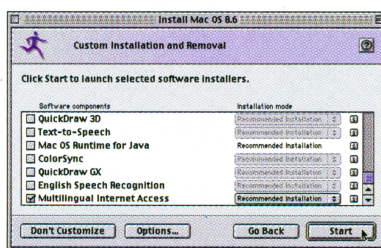
for Keio University in Japan, because it provides parallel English ([www.keio.ac.jp/index.html](http://www.keio.ac.jp/index.html)) and Japanese ([www.keio.ac.jp/index-jp.html](http://www.keio.ac.jp/index-jp.html)) pages.

Before you install the Multilingual Internet Access package, viewing the Japanese page results in Netscape's displaying garbled hypertext, while Internet Explorer shows mostly question marks.

After installation, both browsers display the correct Japanese characters. Of course, being able to actually read what you now can see is another matter entirely.

On the Apple Website ([www.apple.com](http://www.apple.com)), you can also find information about Apple Language Kits, which come in a variety of languages and at various prices. After installing a language kit, you can switch between the computer's main language and your chosen second language (or even third language), making it possible to include several languages in the same word processing or other non-browser document. The kit can be installed on a single Mac, and it comes with a selection of keyboard layouts and transparent keyboard labels.

Apple's Chinese dictation kit, which uses speech recognition, can even convert spoken Mandarin into Chinese text.



## Old to New

**S**o you've finally decided to bite the bullet and trade up from the old Performa to a shiny new iMac. How do you get all those years' worth of term papers, love letters, and assorted brilliant musings off the old beige box and into the new translucent wonder?

The iMac's lack of floppy drive has been hashed to death, of course. You could spring for a USB floppy or an Ethernet-to-LocalTalk bridge. But if you're committed to donating that Performa to the local school, why not face the brave new iMac world floppiless?

The answer could be preserving that Performa's hard drive for prosperity. Most older Macs that can't connect directly to modern iMacs and G3s have relatively small drives — small enough, in fact, to fit onto a CD-R or two. Many service bureaus will do the data transfer for you. Or you might even convince your Apple retailer to handle the burn as an incentive to buy locally instead of from one of the big catalogs.

## Go Postal

**I**f you're working on a document in Word 98 and you'd like to share it with the world, you don't need to save the document, quit Word, open your e-mail program, and attach the file just to send your message. Simply choose "Send To" from the File menu and you'll be well on your way.

This command automatically places the file you're working on into an e-mail message, which you can then address to the lucky recipient or recipients.

This will work with most popular e-mail programs; just make sure that you have your program of choice running in the background the first time you choose Send To. Word will remember your choice and automatically launch that program thereafter.



# Ready Set, Go with Mac OS 8.6

**M**ac OS 8.6 is something of a stealth upgrade. Except for the addition of the version number to the startup screen and some mild tweaking of Sherlock's Internet search window, you'll experience little difference between the new operating system and the previous Mac OS 8.5.

The happy exception may be for PowerBook owners. While Apple isn't making any official claims, many PowerBook users are reporting their systems run cooler and have longer battery life with the latest and greatest OS under the hood.



Heat, as anyone who has tried to use a recent portable on their actual lap will attest, is one of the mostly unspoken "gotchas" of modern computing. Any relief at all is a big deal. User experiences posted to online forums claim temperature reductions ranging from 5 to 10 degrees.

Similarly, the good news continues with respect to battery life. Road warriors are reporting that 8.6 coaxes an additional 15 minutes or so of life from their lithium ion batteries. A pair of second-revision PowerBook G3/233s we know of routinely achieve three hours of run time with energy-saving options turned on. Your mileage, as always, may vary.

## Beam Me Up

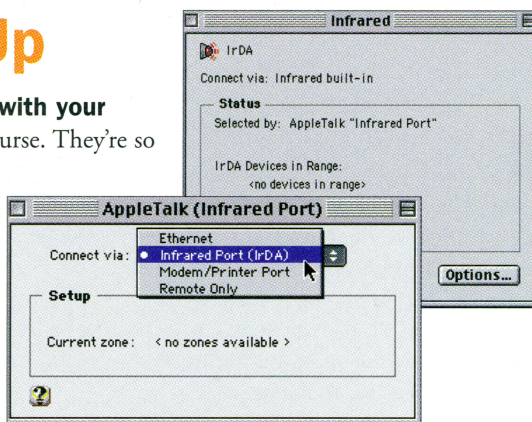
**Y**ou're calling on a client with your PowerBook G3 in tow, of course. They're so wowed by your

PowerPoint presentation that they ask you for a copy.

There are several strategies you can employ at this point. You could use a floppy disk to transfer the file — that is, if you also remembered to bring your expansion bay drive. Or you might opt to set up a makeshift network, if you can rustle up the right cables.

But a quicker solution could be the IR port on the back your PowerBook. Just find another PowerBook or IR-equipped iMac, open the AppleTalk control panel on each, and set "Connect Via" to the Infrared Port (IrDA). Then it's just a matter of opening the Infrared Control panel to monitor the connection and pointing the IR ports at each other. When the two computers see each other via infrared, you can share files just as you would with wires. Just open up the Chooser, and you will see the hard drive of the other computer.

You may remember that the original iMacs (the ones that came in Bondi blue) included those infrared ports. However, those ports were eliminated with the release of the newer fruit-flavored iMacs.



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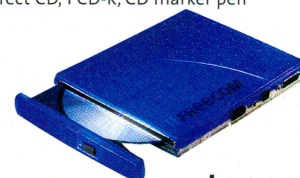
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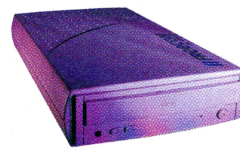


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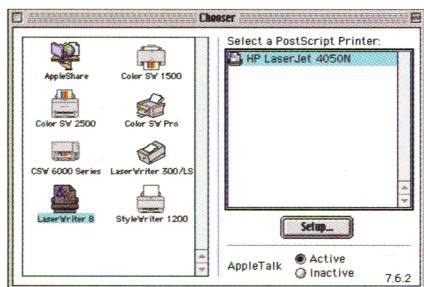


## Printer Cables, Streaming Video, Old Sounds, Modem Woes 'n' Disk Errors

**Q** I recently purchased an HP LaserJet 4050N for use with a PowerMac 5500. Unfortunately, the HP LaserJet 4050N has every imaginable port but a Mac serial port. I could tie the printer to the Ethernet system and use the printer's built in Ethernet card, but I would prefer a direct cable connection. Is there an inexpensive fix?

*John Hutchens*

**A** There is an inexpensive way for you to hook the Power Macintosh and the HP LaserJet together — and it's by



using the much-faster Ethernet ports. Visit a nearby computer store and ask the sales clerk for a “crossover” cable. This \$15 Ethernet cable has one of its wires reversed, allowing you to directly connect your Mac to the printer without having to purchase a pricey Ethernet hub. (Make sure the sales clerk understands that the cable you are looking for is a “crossover” or “gaming” cable, and not a standard 10-BaseT Ethernet cable.)

**Q** I've downloaded QuickTime 4.0 a total of four times to make sure I had it right! Everything seems in order,

except when I attempt to lock on to any of the sites provided in the QuickTime Player program (HBO, Fox News, etc.), I get fragmented audio and video. Since I have never seen streaming video before, I don't know quite what to expect. What I see and hear now is not acceptable, though. Is this a common complaint?

*Jane & Gene Garnes*

**A** Unfortunately, this is an all-too-common occurrence with streaming data. The slower your online connection, the more likely you are to experience fragmented video and audio. A 56k connection transfers data at a maximum of 7k per second — not very fast, considering most QuickTime movies spew forth at 100k per second or more. It's difficult to compress video and audio down to a mere 3 to 7k-per-second transfer without compromising quality. Streaming data is also hampered by Internet traffic. The more data being shuffled around the Net, the more likely your connection

to a streaming video channel may be interrupted. This can result in pauses, frame drops, and choppy audio.

There's no easy fix for this problem. To view streaming video at acceptable speeds, you need a faster connection to the Net. Although ADSL (Asymmetric Digital Subscriber Line, a high-speed modem technology) and cable modems are becoming commonplace in metropolitan areas, high-speed connections still are mostly unavailable. Until then, it's probably best to flip on your television for the weather update.

**Q** I'm stumped. I recently bought a new PowerBook G3 and transferred all my files from my old PowerBook 520c. For some reason, however, I can't copy the sound files off the 520c. I can see the sounds listed in the control panel on the old computer, but I can't find a file to copy! I'm going nuts, since I recorded my baby's heartbeat in the womb on the 520, and I would hate to lose that sound!

*Guy Toubes*



**A** It appears you recorded the sounds into your 520c with the old Sound control panel. This created a system alert sound that is only accessible via that application. System alert sounds are actually stored in the System file, within the System Folder, and they are fairly easy to recover. First make sure that you've quit all open applications. Check the Application menu in the top right corner of the display and be sure that “Finder” is the only item listed. Next,



6 NOV 99 Sharm called ISP Tech Support and was told to change virtual memory to 65 MB

locate your System Folder and open it. Once inside, search for the file called "System" that looks like a small suitcase and double-click to open it. You'll find two different types of files inside — keyboard layouts and system sounds. Locate your sound files and then drag them to the desktop (or hold down the option key as you drag to copy the file). Simply copy the sounds to a floppy and load them into your new PowerBook G3.

There's no need to drag the sound file into the G3's System suitcase, unless you want to use it as a system alert sound. Consider making a new folder in the Apple Menu Items folder (within the System Folder) to place the sound files in. That way, you can access sounds from the Apple Menu.

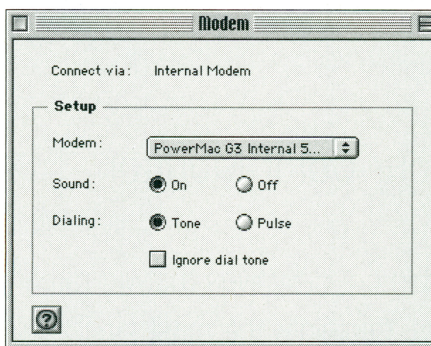
**Q** I recently bought a Power Mac G3, and I am losing my mind! I have the same Internet Service Provider (ISP) as before, I dial up the same phone number as before, but I cannot stay connected! The time I can stay on varies from less than a minute to perhaps five minutes. Then that damnable message, "You have been disconnected" appears. There doesn't seem to be a reason or a particular time. Help!

*Ellie McConnell*

**A** You're experiencing a communications problem between your modem and your ISP's modems. At the beginning of every connection, your modem speaks to the remote modem and sends it a set of protocols, or guidelines, for communication. These are stored in modem description files that reside in your System Folder's Extensions folder. If you used the Internet Setup Assistant when you set up your Macintosh, it asked you to specify your modem (and modem description file). However, it's possible that the incorrect modem was selected. This could lead to communication problems with your server and frequent disconnects. Open your Modem control panel and verify the modem selected in the pop-up menu is indeed your modem.

Unfortunately, your problem may not be cured so easily. Assuming that you had the correct modem selected and you've updated to the latest version of the operating system, it's possible that

your new modem simply cannot reliably communicate with the ISP's modem due to incompatible protocols. To remedy this situation, contact your ISP for assistance. If they cannot help you, consider



purchasing an external modem, or change service providers.

**Q** Sometimes when I try to copy a file to a backup floppy disk, I get the message, "The file xxx couldn't be verified because a disk error occurred. Do you want to continue copying?" Whether I press the Stop or the Continue button, the file copying is aborted. This leaves me with no backup copy of the file. Is there any way to get around this?

*Lawrence A. Coben*

**A** Such an error when you are copying a file is a sure sign that your floppy disk is damaged, and there's no way to repair the disk once some of its sectors start to fail. Saving documents to such a disk is thus very risky, even if the file appears to copy without incident. Floppies are cheap though, so the remedy is to replace the flawed disks. ■■■

## let us know!

Got a Mac problem that's driving you nuts? Let us take a crack at it. We'll answer questions of general interest to all readers. All mail is assumed intended for publication, and we reserve the right to edit questions for brevity and clarity. When sending your questions, include your full name and phone number. Send your questions to:

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# Rays of Light

## The Inner Workings of Your Color Monitor

**T**echnology is so enmeshed in our daily lives that we rarely stop to marvel at its genius. Certainly, the most glaring example of unappreciated technology is the color monitor. Its phosphorescent glow provides us with a window to the world, displaying information and moving images. And yet, few of us can explain how the image is cast on the glass surface.

### Electron Storm

The basis of every monitor is a specialized vacuum tube known as a cathode ray tube (CRT). The tube has a large, flat surface at one end that gracefully tapers to a small rounded point. The inner side of the flat surface is covered by a phosphorescent material that glows when bombarded by electrons. The monitor displays a gamut of colors by combining the three primary colors of light. This is achieved via three electron guns — one red, one green, one blue — that reside at the back of the monitor's housing where the CRT comes to a point. Electrons from the three separate guns are accelerated as they pass through a series of anodes. The color beams strike the phosphorescent surface adjacent to each other to form a dot triad.

The intensity of the electron beams determines the brightness of each primary color, and therefore the overall color of the pixel. If all three electron guns fire at maximum intensity, the resulting dot triad will appear as a single white dot. Once struck by the electrons, the phosphor continues to glow briefly. For the image to be maintained, however, the phosphors must be reactivated by repeated exposure to the electron beams.

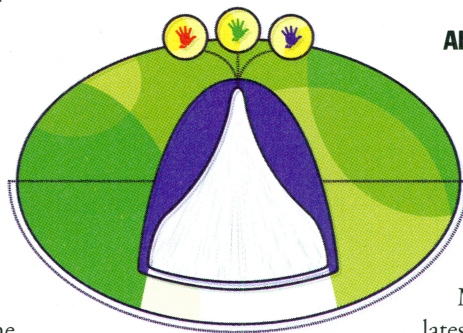
Of course, electrons must strike every

point of the display's inner surface to create the entire screen image. The direction of the electron beams is controlled by a series of deflecting coils that produce a low-frequency electromagnetic field. The electron beams scan horizontally, passing from left to right and then dropping down to the next line, the same way that you read a single column of this article. Once the scan hits the bottom right corner, it jumps back to the top left corner and begins again.

The scan happens so fast, however, it is almost undetectable by the human eye. The scan rate is measured in hertz (Hz — that means *cycles per second*) — figures you may have noticed in the Control Strip's resolution module (i.e., 1024 x 768, 75Hz). The faster the scan rate, the more consistent the displayed image. Scan rates lower than 70Hz tend to produce an image that subtly flickers, which can lead to eye fatigue and headache.

Apple's Studio Displays use a newer technology known as aperture-grille. The

CRT is vertically flat, curving only horizontally. A special grille of metal wires run vertically across the display, separating red, green, and blue phosphor columns. This enhances the sharpness and clarity of the on-screen image, resulting in a brighter overall image. The technology requires horizontal stabilizing wires that help support the grille and stabilize it against shocks. Although they are thinner than a human hair, the wires are readily visible onscreen and can be distracting at first.



### Altogether Now!

Of course, a monitor displays nothing without the help of a computer. The video subsystem in your Macintosh module the digitally coded

layout of the screen image into an analog signal that the monitor can understand. The color value for each successive pixel is separated into red, green, and blue values that are simultaneously sent to the corresponding electron gun. Electrons are fired from each gun, varying in intensity depending upon the intended color of the pixel.

The electrons are accelerated through a series of anodes and are then redirected by an electromagnetic field created by deflection coils. The electrons strike the phosphorescent surface of the tube, creating a colored point of light. The process continues at a blistering speed, thus creating a seamless image out of colored light. ■■■



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Ars Nova	206-889-0927	206-889-0927	www.ars-nova.com	76
ASD Software	909-624-2594	----	www.asd.com	72
Bungie	800-295-0060	312-255-9600	www.bungie.com	BC
Coast to Coast Memory	800-4-MEMORY	----	www.18004memory.com	72
Computer Connections	781-271-0444	781-275-5742	www.storagecompany.com	63
Connectix Corp.	800-950-5880	800-839-3627	www.connectix.com	IBC
Contour Design	800-462-6678	----	www.contourdesign.com	71
Creative Computers	800-579-0698	----	www.macmall.com	68-69
DataTech	800-281-3661	----	www.datatech-rmkt.com	76
Desktop Services	800-224-5899	----	www.macs4u.com	72
Earthlink Network	800-395-8425	800-395-8424	www.earthlink.com	11
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# On this month's CD

September 1999

**H**ey gang! Starting with this month's CD-ROM, we're ditching the fancy-schmancy graphical interface with a straightforward, Mac-like files and folders arrangement. There's something for everyone on our September disc:

## Apple Updates

Apple Modem  
AppleShare PDS  
ARA Client Only  
ATI Video  
Software  
ColorSync  
English Speech  
Recognition  
FireWire  
G3 CD Update  
G3 Firmware  
Update  
iMac CD  
Firmware Update  
iMac Firmware  
Update 1.2  
Mac OS 8.6  
Update  
OpenGL  
USB Mass  
Storage  
Support

## Application

**Demos**  
Adobe  
ImageReady  
AppleWorks  
Black and  
Blue  
Conflict  
Catcher™ 8.0  
Dreamweaver 2  
Extensis  
Suitcase 8  
Fireworks 2  
Freehand 8  
Demo  
Reunion 6  
Norton AntiVirus  
QuickKeys 4.0  
Timbuktu Pro  
EarthLink

## Edutainment

Blue's ABC  
Activities  
Freddi Fish 4  
Putt Putt Enters  
the Race  
The Gungan  
Frontier Demo  
**Game Demos**  
Bugdom

## Ceaser III Demo

Dark Vengeance  
Jazz Jackrabbit 2  
Lost Souls  
RRTII Demo  
Starcraft  
Tanaka  
Tomb Raider  
Gold  
Traitors Gate  
Eudora Pro 4.0.2  
Outlook Express  
QuickMail Pro  
Flash 4.0  
Netscape  
Communicator  
Internet Explorer  
RealPlayer G2  
ShockWave 7

## Shareware Utilities

8Tuner 3.5.1  
A Better Finder  
Attributes 1.1  
A Better Finder  
Rename 2.2.1  
ABFSelect\_1\_7  
ACTION GoMac  
Agax1.2  
Aladdin  
DropStuff  
Aladdin  
Expander  
AutoDelete  
BeHierarchic4.0  
BugScan 1.2.3  
Burn 2.5  
DragPeek 1.0  
Folder  
DragStrip®  
DropIcon 2.0  
DropImage 1.5  
Extension  
Overload v3.3  
File Buddy™ 5.2  
Font Gander Pro  
FontBuddy 1.2  
Graphic  
Converter 3.6  
iMacolor 1.0  
iView Multimedia

## MacOS Items

Manager 1.0  
MPEcker Drop  
Decoder 1.6.2  
MPEcker  
Office 98-File  
Maker Pro  
Pretty Scroll 2.0  
SecretFolder 1.1  
Sherlock Menu  
SimpleLaunch  
er 3.5.2e\_PPC  
Snapz Pro 2.01  
SoundApp Fat  
SuperLock4 Lite  
Incredible Elk  
TitleTrack 2.0  
TypeIt4Me 4.8.1  
USB Overdrive  
**Software  
Updaters**  
Adobe Premiere  
AppleWorks  
5.0.3 Updater  
Conflict Catcher  
8.0.3  
Connectix VGS  
Dark Vengeance  
Eudora Pro 4.2  
Updater  
Fireworks 2.0.2  
Updater  
Global Village PC  
Card 56K 2.2  
IE 4.5 Plug-in  
Illustrator 8.0.1  
IomegaWare  
MouseWare  
Myth 1.3  
Office 98 8.5  
Update  
QuickCam  
REALBasic  
TelePort 2.6.8  
Umax VistaScan  
Unimouse  
Overdrive  
Unreal UMOD  
Unreal Updates  
USB SuperDisk  
2.0 Update  
VPC 2.1.3 up  
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Price	\$1,598	\$1,998	\$2,498	\$2,998

Monitor sold separately. A \*30 professional installation fee applies for the free memory.



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> 17" (16" Viewable) > 1600 x 1200 @ 60Hz  
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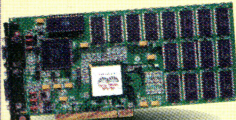
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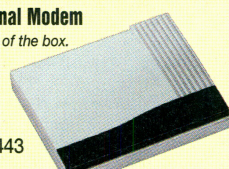
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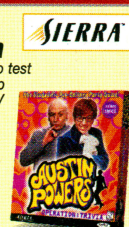
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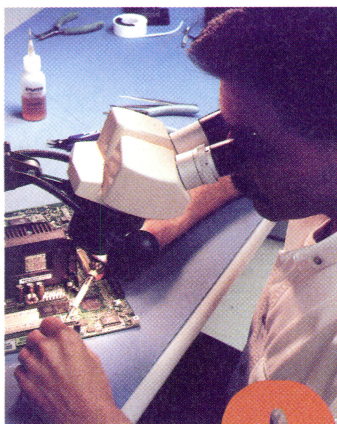
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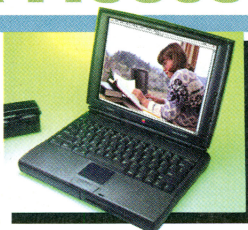
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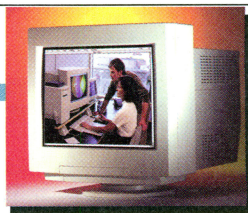


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The gPort universal serial adapter is the perfect companion for your new blue G3 computer. Designed from the ground up with the G3 in mind it supports every serial device that works on your older Macs.

The gPort uses the internal modem slot for "board level" compatibility and provides a great transition for people with existing serial equipment. Retail price \$49

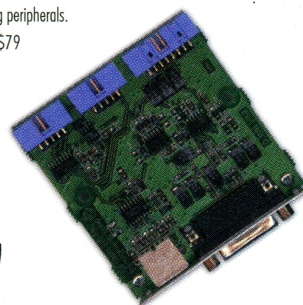


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  - Economical
  - Cost Effective
- Supports:**
- Midi Interfaces
  - LocalTalk Printing & File Sharing
  - Serial Printers
  - Modems/ISDN Adapters
  - PDAs/Palm Pilots

# gPort

**THE SERIAL SOLUTION**

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# iPort

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- Also supports video mirroring\*
- Supports all Mac compatible serial devices
- Supports LocalTalk file sharing and printing

\*Video mirroring is only available at 640x480, 800x600, and 1024x768

The gPort universal serial adapter is the perfect companion for your new blue G3 computer. Designed from the ground up with the G3 in mind it supports every serial device that works on your older Macs.

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- Easy to install
  - Economical
  - Cost Effective
- Supports:**
- Midi Interfaces
  - LocalTalk Printing & File Sharing
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# gPort

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Designed for both professionals and hobbyists, the NE Mic™ adapter provides superior audio input quality when used with hundreds of readily available PC and consumer products. Retail price \$20



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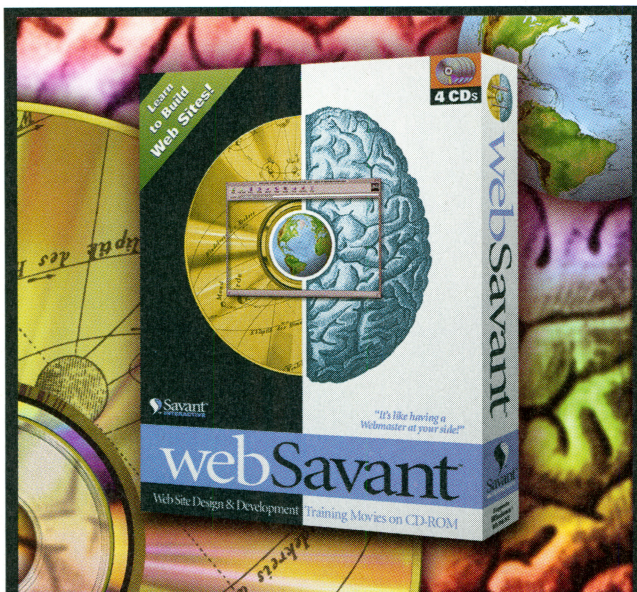
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- No Setup or Drivers Required

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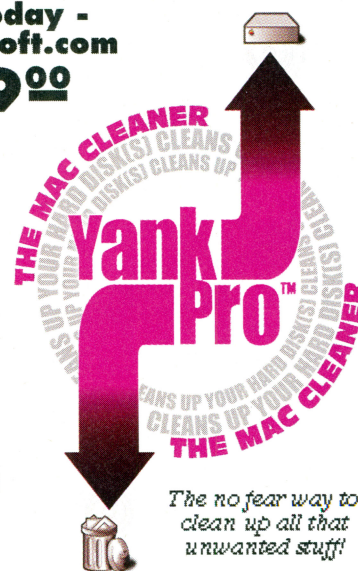
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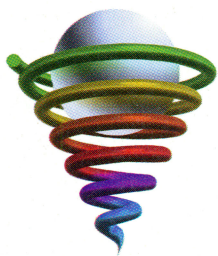
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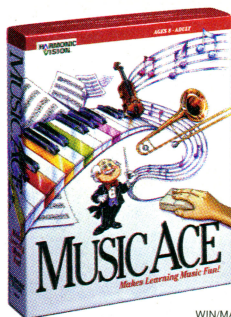
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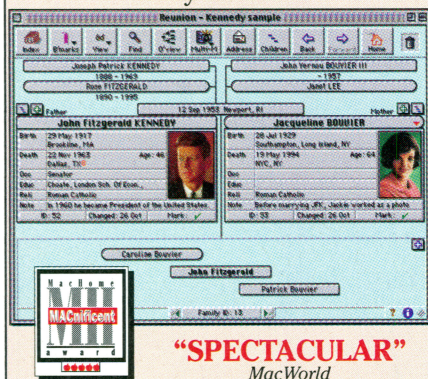
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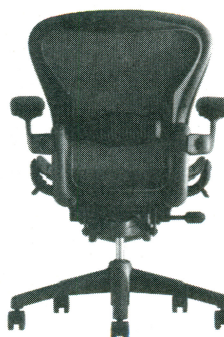
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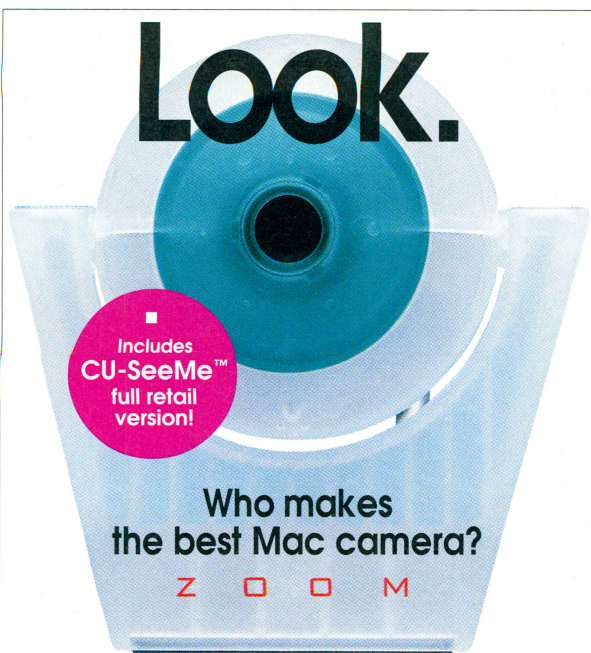
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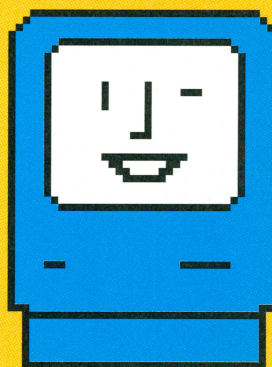
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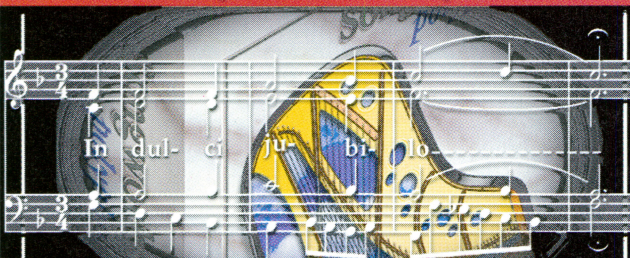
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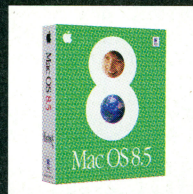
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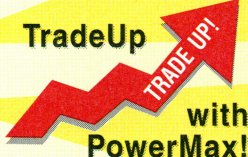
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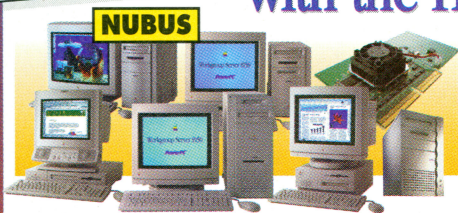
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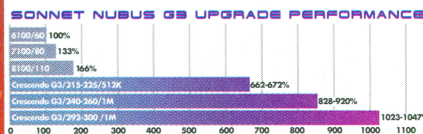
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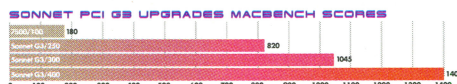


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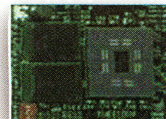
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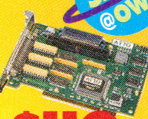


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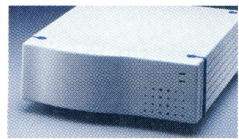
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# ihnatkko [Commentary]

By Andy Ihnatko

## Where Geeks Run Mighty

72 hours without sleep, good food or sunlight

I stand before you as a survivor of the four weddings of my sisters. I've seen the Big Day from the perspective of guest, brother, Best Man, and Maid of Honor (yes). I've learned that paramount to the success of the proceedings is the ability of the wedding party — particularly the bride and mother thereof — to roll with the unexpected.

This thought was much on my mind as I spied a few men in morning coats walking nervously through the crowded lobby of the Holiday Inn in Dearborn, Michigan, this past weekend. I was sort of wondering how some brides would react to the sudden revelation that the hotel they'd booked for their wedding

MacHack is a unique beastie on the annual calendar of Macintosh events. Macworld Expo is for everyone, but it's the playground of PR and marketing people. Even Apple's World-Wide Developers' Conference (WWDC) is modified PR: It's the place where Apple tries to sell programmers on writing Mac software for yet another year. MacHack is the only conference that is a strictly enforced Marketing-Free Zone. It's a Geek Preserve — a Federally protected Madagascar of sorts — where the segment of the Mac community that takes raw ideas and turns them into things you can click and drag can gambol, romp, and eat cold pizza, free from the predatory shadow of the sort of people who have Palm III organizers but without UNIX shells. Like most conventions, you'll have a meal in the hotel restaurant and hear someone complain about their problems getting a certain app to print over LocalTalk. But unlike most conventions, someone points at another table and says, "Why don't you talk to Matt? He wrote the print driver."

reception was also hosting MacHack, a convention of 300 hard-core programmers, on that same weekend. My cousin Darla would take one look at the lobby strewn with miles of Ethernet cable and a hundred hackers in jeans and tee shirts splayed behind their PowerBooks, and march straight off again, formulating her tirade and hoping that what she was about to say to the hotel manager wouldn't cause her gown to spontaneously turn black.

MacHack includes presentations and sessions on key technologies, but most press coverage is on the legendary MacHax competition, and that's forgivable. It's hard for a reporter not to gravitate toward people starting from scratch, spending 48 sleepless hours writing some of the most jaw-droppingly useful (and sometimes heroically stupid) code that's never been attempted before. One might question an app that displays Web pages with a cartoon man waving semaphore flags for each letter, but this year also brought code that adds "Undo" to the Finder. A lone woman getting by on no sleep and a exclusive diet of junk food conceived and created this in two days. Apple hadn't done it in fifteen years!

But that's not the real point of MacHack. The real importance of the conference is there in the lobby. It's interacting with the people who actually get things done in this industry: with few exceptions, these are the most important programmers from every important company creating Mac software. The future of the Macintosh is literally in their hands, and this is where they compare notes — and shape the Mac's future. They casually discuss what's right, what's wrong, and what's being overlooked entirely. The discussions they have at MacHack have a true bearing on the shape of the MacOS.

At Apple WWDC, we're all trying to figure out how Apple's emerging OS strategy is going to impact our products. At Macworld Expo, it's all about how we can find well-feathered pigeons willing to buy them. MacHack takes place in June, smack-dab in between. It's like the "Amen" between the end of the sermon and the scramble to beat the rest of the congregation to the parking lot. **III**

**MacHack is the only conference that's a strictly enforced Marketing-Free Zone ... a Federally protected Madagascar of sorts.**



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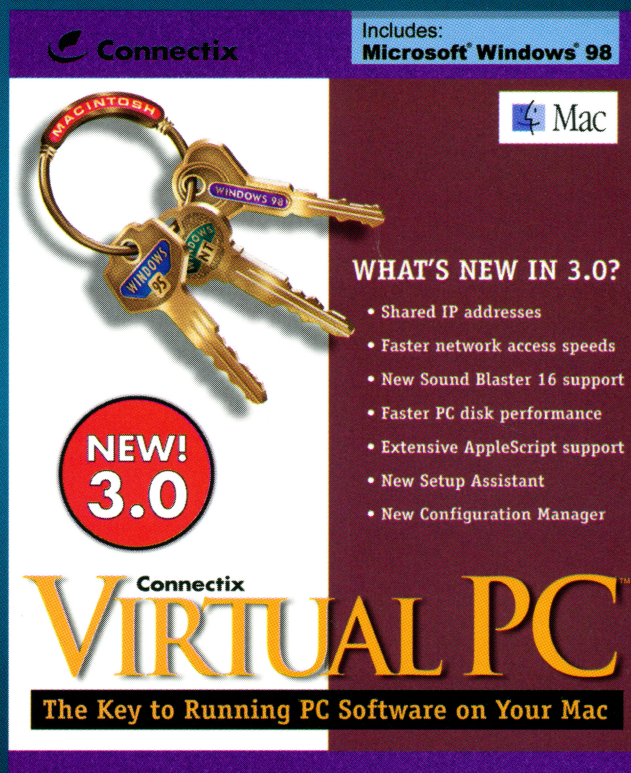
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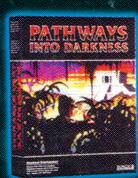
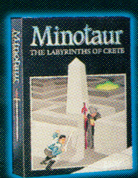
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